

FROM INTERNATIONAL TIMURID TO OTTOMAN: A CHANGE OF TASTE IN SIXTEENTH-CENTURY CERAMIC TILES

Before Iznik reached its undisputed position of prominence in the production of underglaze painted architectural tile revetments around 1550, Ottoman buildings were decorated by a technically and stylistically varied repertoire of tiles characterized by a Turco-Iranian "international Timurid" taste. Fifteenth-century Ottoman tile revetments can be ascribed to immigrant craftsmen from Iran working with local assistants.¹ Following them were a group attached to a hitherto unknown ceramics workshop in Istanbul, headed by one of the Tabrizi master craftsmen whom Selim I had brought to his capital following a victory over the Safavids in 1514. Identifying the output of that workshop, which was responsible for making the tile revetments for most of the imperial Ottoman buildings commissioned up to the early 1550's, has important implications for understanding the subsequent revolution in taste and technology pioneered in Iznik.

Iznik played a relatively unimportant role in the production of architectural tile revetments before the mid sixteenth century. Neither textual sources nor recent excavations provide evidence about tile production on a large scale in that city prior to the construction of the Süleymaniye mosque in Istanbul between 1550 and 1557. The industry of fritware pottery established in Iznik around the 1470's through Ottoman court patronage had broadened its market base from the 1510's onward with expanded production, but not more than a few tiles can be attributed to its potters before the middle of the sixteenth century. These include the underglaze painted blue-and-white border tiles in the tombs of Şehzade Mahmud (1506-7) and Ahmed (1512-13) in Bursa which are decoratively related to Iznik pottery, but exhibit variations in both glaze composition and body structure that confirm the relative unrefinement of tile technology at that point. The group of so-called Damascus pottery, produced in Iznik between 1535 and 1560, also consists almost exclusively of ceramic vessels except for a few examples of hexagonal

tiles such as the ones transferred by the Grand Vizier Rüstem Pasha from another bath to the Yeni Kaplıca Baths of Bursa restored in 960 (1552-53), suggesting that the manufacture of tile revetments on a large scale had not yet begun.²

Extensive tile decoration appears for the first time in the Yeşil mosque and tomb complex of Mehmed I in Bursa, built between 1419 and 1424 to commemorate the restoration of Ottoman rule following a dynastic crisis caused by Timur's defeat of Bayezid I in 1402. The "Masters of Tabriz" who signed the tilework were supervised by the court designer Ali ibn İlyas Ali, known as "*nakkaş 'Alī*," who was responsible for coordinating the decorative program, which consisted of tilework, wall painting, woodwork, and stone carving.³ The sixteenth-century Ottoman biographer Taşköprülüzade states that the designer Ali, a native of Bursa, had been carried off by Timur to Transoxiana where he received his artistic training. He was the first artist to introduce painted decoration in the Timurid mode to his homeland.⁴ Hacı İvaz Pasha, who is identified as the supervisor of construction in the Yeşil mosque's foundation inscription, is credited by the early-sixteenth-century historians Neşri and Aşıkpaşazade with being the first grand vizier to invite an array of skilled foreign artisans to the Ottoman court. The foreign ceramicists imported by Hacı İvaz probably produced their varied repertoire of *cuerda seca*, monochrome glazed, and underglaze painted blue-and-white tiles (seen on the sarcophagus of Sitt Hatun at the Yeşil tomb) in local kilns at Bursa close to the construction site.⁵

The "Masters of Tabriz" apparently were sent from Bursa to Edirne to decorate among other buildings the Muradiye mosque of Murad II in the 1430's. The mosque's *cuerda seca* mihrab, which closely resembles that of the Yeşil mosque, has underglaze painted blue-and-white insets forming a unified group with the underglaze hexagonal tiles decorating the dadoes. The juxtaposition of tiles in several techniques and color

schemes in the fabric of a single building leaves no doubt that they were produced simultaneously by the same ceramic workshop in local kilns. The technical examination of tiles made by the Masters of Tabriz has shown that the technology used for making *cuerda seca* and underglaze blue-and-white tiles in the Muradiye mosque was the same. The lime-alkali frit typical of the blue-and-white underglaze pottery of Iznik.⁶ The Tabrizi masters were in full command of several tile techniques, including plain or gilt monochrome, underglaze, *cuerda seca* , and mosaic-faïence. Except for the *bannā'ī* technique of glazed bricks unsuited to Ottoman stone-masonry buildings, this wide-ranging repertoire is characteristic of the work of contemporary Timurid tilemakers who similarly juxtaposed tiles of differing techniques and color schemes in the same building.

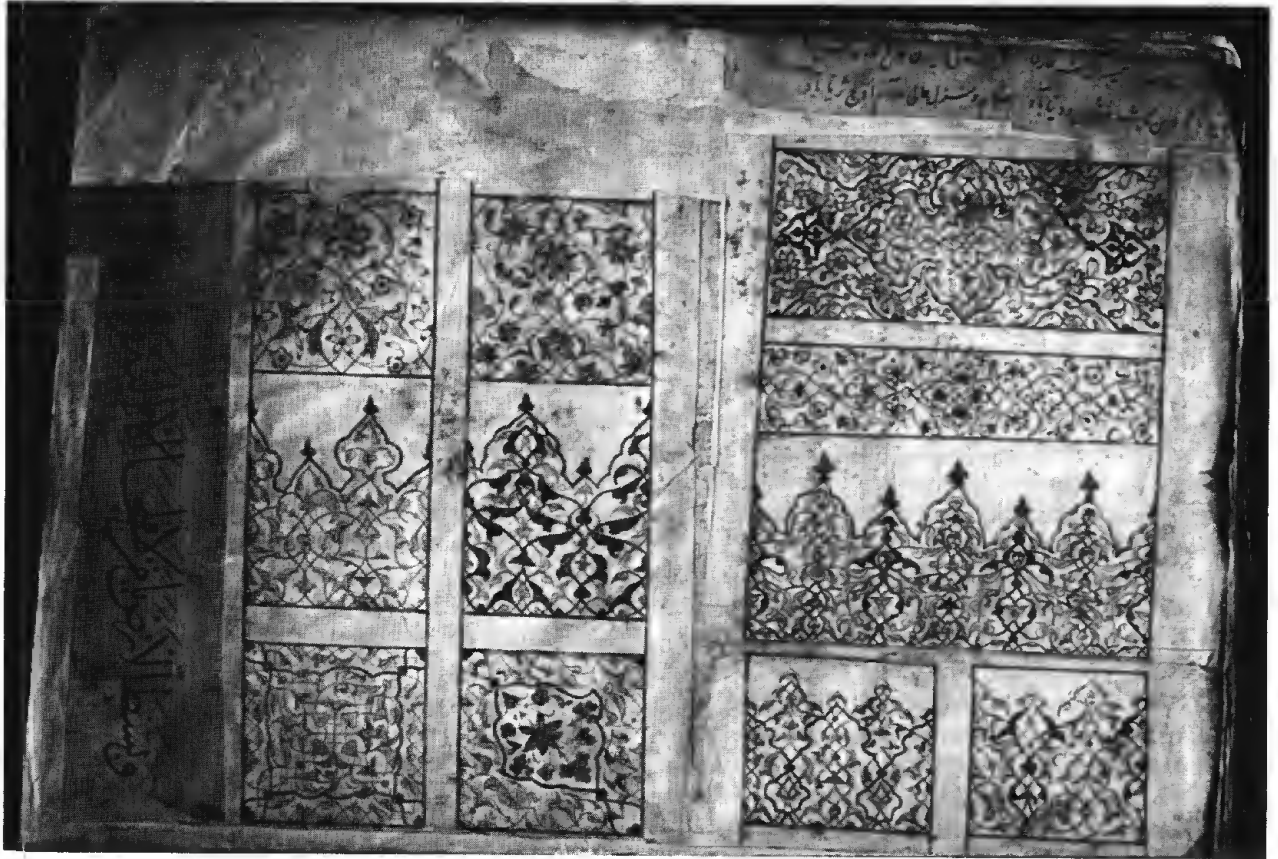
Several early-fifteenth-century Timurid buildings in Khurasan also feature underglaze painted blue-and-white tiles used here and there, along with mosaic-faïence or *cuerda seca* tiles based on a contrasting palette of opaque yellow, green, and blue.⁷ Such underglaze painted tiles were used sparingly in Timurid public architecture, but might have been more common in the decoration of palaces, as the Chini-Khaneh pavilion built by Timur's grandson Ulugh Beg in the 1430's in Samarqand suggests. Excavations in 1941 at the site of this lost, porcelain-faced pavilion yielded hexagonal tiles painted in cobalt blue on a white ground, which are believed to have been imported from the Ming imperial factories, as well as local imitations.⁸ Spurred by the sudden influx of Chinese porcelain at the Timurid court following numerous exchanges of embassies with China in the early fifteenth century, such rare examples of blue-and-white underglaze painted tiles disappear from the architecture of Khurasan after the mid fifteenth century. Surprisingly, Chinese models did not have as strong an influence on the Timurid blue-and-white tiles of Khurasan as they had on the ones executed in fifteenth-century Syria, Egypt, and Turkey.⁹

Reflecting local variants of an international Timurid taste, blue-and-white tiles of mostly hexagonal shapes found in Mamluk Syria and Egypt, as well as in the Ottoman capitals of Bursa and Edirne, appear to have been created by artists from Tabriz, the capital of the Qaraqoyunlu and Aqqoyunlu Turcoman dynasties. Compared to the tiles of the Tawrizi (i.e., Tabrizi) complex in Damascus (ca. 1430), the technical perfection of the Muradiye tiles in Edirne suggests that different groups of itinerant potters were at work.¹⁰ Un-

fortunately, the wholesale destruction of contemporary buildings in Tabriz — the only one to survive is the Blue Mosque (1465), where square blue-and-white underglaze tiles are used in conjunction with a variety of glazed tiles and mosaic-faïence — makes the study of this Tabrizi tradition impossible. Its impact was still strong in the Dome of the Rock tiles, signed by Abdallah of Tabriz and produced on the order of Sultan Süleyman between 952 (1545–46) and 959 (1551–52), which combined in the same scheme tile mosaic, *cuerda seca* , polychrome underglaze, as well as blue-and-white underglaze tiles.¹¹ As we shall see, the influence of this Tabrizi school was also felt in Istanbul up to the middle of the sixteenth century.

The international-Timurid decorative repertoire with its strong element of chinoiserie, which developed in various forms at courts from Samarqand, Herat, Tabriz, Damascus, and Cairo to the Ottoman world, continued to be influential after the fall of Constantinople. The masters of Tabriz appear to have moved from Edirne to Istanbul, for the two surviving polychrome tile lunettes in the courtyard of the mosque of Mehmed II (1463–70) which copy laborious *cuerda seca* tiles in the quicker underglaze technique, resemble the ones they made for the Üç Şerefeli mosque of Edirne (1437–47). The continuing impact of Timurid models is confirmed by the contemporary historian Mu'ali who mentions the role of architectural decorators from Khurasan (*ahl-i hunar az Khurasān zamīn*) in the mosque complex of Mehmed II.¹² The ceramicist (*çinīci*) Shuja', whose property near that mosque is cited in Mehmed II's waqfiyya, might well be one of these Timurid artists who experimented with new methods and materials under Ottoman patronage as exemplified by the unprecedented polychromy of the underglaze tiles in Mehmed's mosque.¹³

An undated Persian document recently published by Kırımlı confirms the activity of a different group of "tilecutters from Khurasan" (*kāshī-tarāshān-i Khurasān*) in Istanbul who beg for more work after having completed a pavilion (*qasr*) for Mehmed II. Their Timurid-flavored tilework is preserved in the Çinili Köşk at the Topkapı Palace (1472) where the *bannā'ī* technique is encountered for the first time in Istanbul. Since there are no other preserved examples of comparable tilework, these Khurasani tilecutters were apparently unsuccessful in obtaining the new job for which they had petitioned; they must have returned to their homeland soon after.¹⁴ These itinerant tile mosaicists had probably been invited specifically for the Çinili Köşk project



1. Designs for tiles from an album compiled at the court of Mehmed II (Istanbul University Library, F. 1423)

by the sultan who generously supported foreign talent, as witnessed by his patronage of Iranian poets and scientists. He invited to Istanbul the famous poet Jami of Herat and Ulugh Beg's astronomer Ali Kuşçu who lived in the Aqqoyunlu ruler Uzun Hasan's court at Tabriz before joining the Ottoman court in 1472. The prestige of Timurid architectural decoration in those years is seen in an album at the Istanbul University Library, which includes studies for square, rectangular, and crenellated border tiles attributed to Mehmed II's court painter Baba Nakkaş (fig. 1). This artist, who received a fief from the sultan in 1466, where he endowed a mosque in 1475, is identified by Evliya Çelebi as an Uzbek designer responsible for the painted decorations of Bayezid II's palaces in Istanbul. His designs in the Istanbul University Library album testify to the predominantly Timurid decorative vocabulary of Ottoman wall painting and tilework in the late fifteenth century.¹⁵ This is confirmed by a poem of Cafer Çelebi composed in 899 (1493–94) which refers to "*rûmî*" (i.e.,

foliate arabesques of *Rûm*, known as *islîmî* or *islâmî* in the Timurid world) and "*çinâyî*" (chinoiserie motifs of Cathay) patterns, typical of all local variants of the international-Timurid style, in the architectural decoration of Mehmed II's mosque in Istanbul.¹⁶

After completing the decoration of Mehmed II's imperial mosque, the masters of Tabriz appear to have left the Ottoman capital in the late 1470's for Bursa, where a workshop had already been established around 1419–24. Probably they were the ones who decorated the tomb of Prince Cem in Bursa (built by Mehmed II for his son Mustafa who died in 1474) with gilded hexagonal monochrome tile dadoes framed by underglaze borders of purple and two tones of blue, and single hexagonal underglaze tiles accentuating the monochrome tile lunettes. Characterized by a decline in standard these tiles are the last ones attributable to the Tabrizi masters.¹⁷

After a gap of nearly three decades tilework related to Iznik pottery appears for the first time in 1506–7 at the

tomb of Şehzade Mahmud in Bursa. Such major imperial buildings as Bayezid II's royal mosques in Edirne (1484–1487/88) and Istanbul (1500–1505), however, do not feature any tile revetments. Ceramicists are conspicuously absent from an unpublished early-sixteenth-century register of wages which lists 360 *ehl-i hîref* (craftsmen) artisans specializing in various crafts at Bayezid's court in Istanbul.¹⁸ They are cited for the first time in a royal wage register from 932 (1526) as a branch of *ehl-i hîref* artisans who received regular wages from the Head Treasurer, a eunuch in charge of the sultan's Inner Treasury at the Topkapı Palace. This document from the early part of Süleyman I's reign identifies the chief of the "community of ceramicists" (*cemâ'at-i kâşîgerân*) as Habib from Tabriz. His ten assistants (*şâgirdân*) had been recruited from various parts of the Ottoman empire, including Bosnia, Trabzon, Skopje, Prespa, Nevrekop, and Varna. The Tabrizi master Habib, whose name was officially incorporated into the *ehl-i hîref* register in 1523 after an initial period when he was paid out of the sultan's private purse at Istanbul (*istanbul hâşşa harcı*), is almost certainly one of the craftsmen Selim I brought to his capital from Tabriz in 1514. The same sultan had also brought at least two more tilecutters (*kâşîtraş*) from Tabriz, Abd al-Razzak and Burhan.¹⁹ Although the eighteenth-century historian Küçük Çelebizade states that Selim I settled these ceramicists in Iznik, their impact on the ceramic industry of that city has rightly been questioned. Contemporary texts compiled by Anhegger clearly indicate that Selim I had sent a large group of artisans specializing in various crafts, both Timurid masters from Khurasan whom Shah Ismail had settled in Tabriz after capturing Herat in 1507, and native Tabrizis, to Istanbul.²⁰

The listing of Habib's name in the *ehl-i hîref* register of 1526 confirms his attachment to the royal court's service in Istanbul. It also signals the new, centralized organization of court ceramicists, an organization that could no longer accommodate itinerant artisans following jobs from one place to the other. Two unpublished fragments of Süleyman I's royal account books, written in the *siyâkat* script and dating from 1527–28, provide conclusive evidence that the *ehl-i hîref* ceramicists worked in Istanbul (see Appendix I).²¹ These documents, which record the sultan's personal expenses in Istanbul, cite among the repair costs for various buildings (*ihrâcât-i meremmât-i ebniye-i müteferrika-i harc-i hâşşader istanbul*) a royal ceramics workshop (*kâşîhâne-i hâşşa*). This workshop which employed seven assistants was overseen by "Usta 'Alî kâşîger," who is listed as the

highest paid assistant of the chief ceramicist Habib in the register from 1526. By 1527, Ali had been promoted to his Tabrizi master's position; Habib must have died in the meantime.

Several references in these account-book fragments indicate that Ali's workshop in Istanbul was extensively repaired in 1527–28 as suggested by phrases such as "repairing the workshop of Usta Ali and building a staircase," "constructing the kiln in the royal ceramics workshop and repairing its pool," "repairing the kiln in the royal ceramics workshop," and "the cost of lids for five kilns." In addition to these at least five kilns, this workshop had large mortars for grinding raw materials (listed together with their prices in the account books (see Appendix I)) with iron pestles, equipment for melting ingredients, and a water tank where they were left to settle before being strained through sieves, and cut up into pieces.

Although the account books from 1527–28 do not mention in which district of Istanbul Usta Ali's workshop was, its site can be determined from another source. A document dated 1568–69, dealing with the Kırkçeşme and Kağıthane water canals, indicates that a "*kâşîhâne*," for which an antiquated conduit provided water, was located at Tekfur Sarayı.²² It is therefore far from a coincidence that Damad Ibrahim Pasha again chose Tekfur Sarayı as the site of a ceramic factory to which in 1718–19 he brought potters from Iznik, where the tile industry was collapsing. The *çinihâne* constructed on a 206.5-cubit-square plot in this area in 1721, consisting of a stone workshop with a separate kiln room, storeroom, courtyard, and a wooden shed for grinding materials, appears to have replaced the one used in the sixteenth century.²³

The original ceramics workshop had probably been built near the city walls because of the fire hazard it presented, and near the Golden Horn for easy transport of raw materials by water. The account books from 1527–28 confirm that clay, limestone, crude potash, and wood were brought there by ship (see Appendix I). That it was no longer functioning by the middle of the seventeenth century is suggested by the Ottoman traveler Evliya Çelebi's failure to mention it in his list of Istanbul's royal workshops. He only refers to 250 potter's workshops (*çömlekciyân*) in the potter's suburb along the Golden Horn known as Çömlekçiler, where unglazed earthenware vessels were produced and sold, and to 100 shops of ceramicists (*çiniciyân*) in the same area which were apparently retail outlets for Iznik and Kütahya wares.²⁴

The existence of a sixteenth-century royal ceramics workshop in Istanbul, staffed with court artisans belonging to the *ehl-i hîref* organization, poses important questions about the status of Iznik as a parallel center of ceramic production. Iznik ceramicists are not cited in royal payroll registers, for they were not part of the centralized *ehl-i hîref* organization, and unlike the royal ceramics workshop in Istanbul, which catered exclusively to the sultan and his highest dignitaries, those in Iznik were never fully controlled by court patronage. Their status was comparable to that of the carpet manufactories in Uşak, or the textile factories in Bursa, some of whose products were bought by the Ottoman court, and some exported or sold on the open market. Imperial firmans from the second half of the sixteenth century indicate that these provincial workshops often produced objects for royal patrons on the basis of patterns prepared by court designers at the capital, but the court also bought ready-made examples available on the open market to a larger urban sector. These semi-autonomous workshops creatively synthesized fashions invented at the court in Istanbul with improvised motifs reflecting popular tastes and produced objects of differing quality levels for various types of patrons.

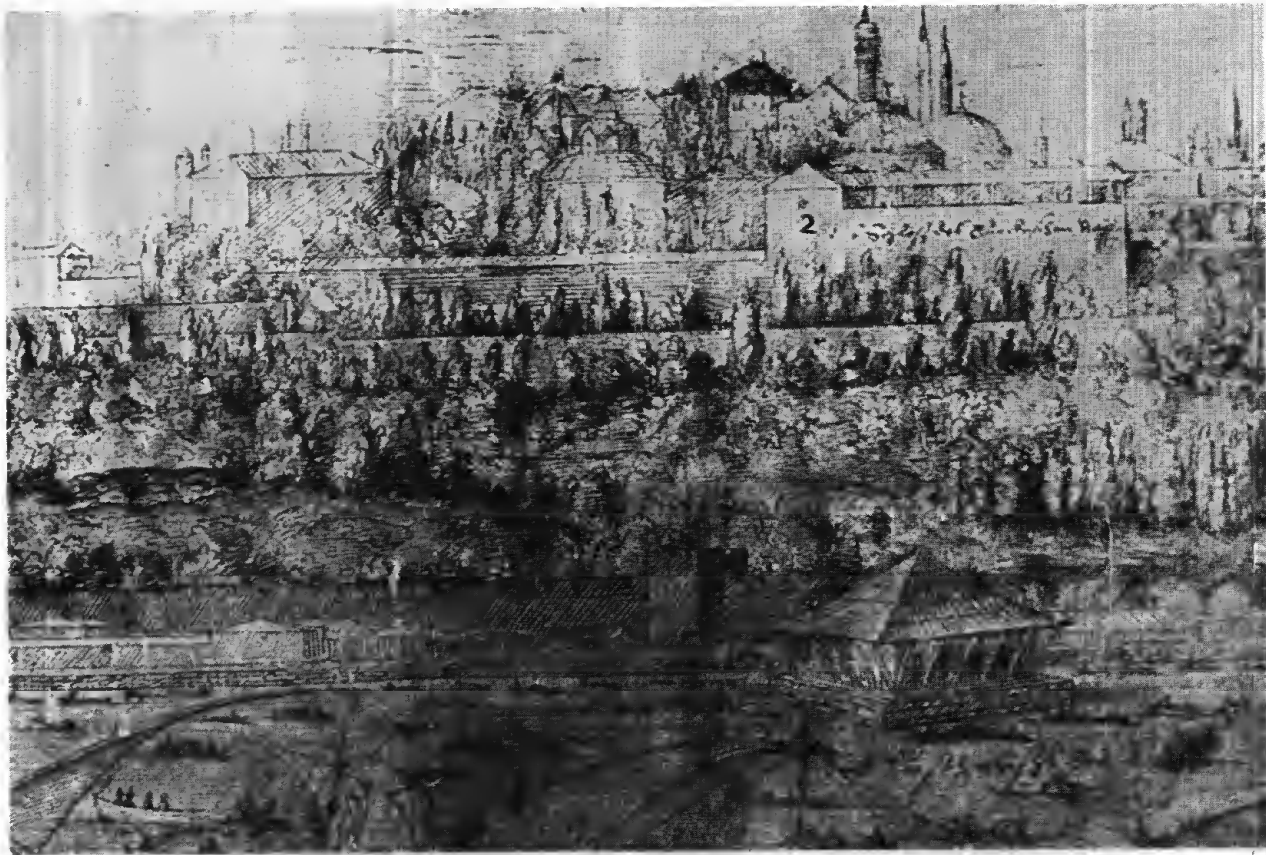
The royal workshop of ceramics in Istanbul, in contrast, specifically served the court's needs, like other *ehl-i hîref* establishments in the capital such as the factories for silk textiles (*kārḥāne-i kemḥāciyān*), and carpets (*kārḥāne-i kālīçebāfān*), or the workshop of court designers (*kārḥāne-i naḳḳāşān*), to mention a few of those cited in sixteenth-century documents. These imperial workshops, to which court designers (*naḳḳāş*) often supplied patterns (much like the artists of the Timurid prince Baysunghur's *kitābhāna* who in the 1420's produced designs for various media including manuscripts, objects, tents, and tilework), were equipped only for small-scale production and could not deal with the large projects commissioned by the court which their commercially oriented rivals in the provinces could handle.²⁵ The latter could therefore challenge the imperial workshops; in the case of the ceramics industry, for example, Iznik completely supplanted Istanbul around 1550.

To understand how this happened, one has first to identify the output of Istanbul's royal ceramics workshop. Archival documents refer to special gifts presented by *ehl-i hîref* ceramicists to the sultans on religious holidays — in one case a ceramic rose and a dish, for example — for which they were rewarded with a royal gratuity, but it is difficult to identify any of these ob-

jects.²⁶ However, tile revetments on surviving Ottoman imperial buildings commissioned between the late 1510's and the early 1550's, which are technically and stylistically varied, can almost certainly be attributed to the *ehl-i hîref* ceramicists in Istanbul. The account books from 1527–28 mention specific buildings that were faced with tile revetments by Usta Ali's ceramics workshop in those years. The Topkapı Palace and the Ibrahim Pasha Palace (sacked by Janissaries in 1525) were then both undergoing extensive renovations. These projects had been entrusted to the Chief Architect Alaüddin (*mi'mārbaşı Alā'üd-dīn*), nicknamed Ali of Iran ('*Acem 'Alīsi*, '*Acem 'Alī*), and were carried out between 1526 and 1528–29. The completion of the sultan's palace is commemorated in a Persian chronogram, "He settled at the House of Felicity" (*jā-kard be-maskan-i sa'ādāt*), by the poet Helaki which yields the date 935 (1528–29).²⁷

The ceramic revetments of Ibrahim Pasha's palace at the Hippodrome, listed in the account book as "tiles for the House of Felicity of His Majesty the Pasha," did not come to light during the recent restorations. However, some extant tile revetments at the Topkapı Palace can be identified as having been produced in 1527–28 by Usta Ali's workshop. The fragmentary account books from those years mention tiles made for Süleyman's recently completed Arz Odası (Chamber of Petitions) and for a new kiosk that was being built for the sultan on the site occupied today by the Baghdad Kiosk. The tiles for the Arz Odası are mentioned as "assorted tiles for the inner audience hall of the Imperial Palace." Those for the incomplete kiosk, which is seen on Melchior Lorch's panorama of 1559 (fig. 2), are cited as "assorted tiles for the new kiosk of the privy garden near the marble terrace." On the same marble terrace with a pool which extended in front of the Sultan's Privy Chamber (known today as the Pavilion of the Holy Mantle), a "new room" (*oda-i cedīd*), occupying the site of the Sünnet Odası (Circumcision Room), was also built (fig. 3). On the basis of an old photograph, Eldem has shown that the Sünnet Odası still has its original early-sixteenth-century masonry core, which according to an inscription was remodeled (*tecdīd*) in 1051 (1641) (fig. 4). The predecessor of the Sünnet Odası, which is also seen on Melchior Lorch's panorama (fig. 2), appears to have been faced with tile revetments, but the fragmentary account books — which also cite extensive repairs at the harem — fail to mention them.²⁸

The patchwork of tiles which face the Sünnet Odası today provides some idea of the assortment of tiles



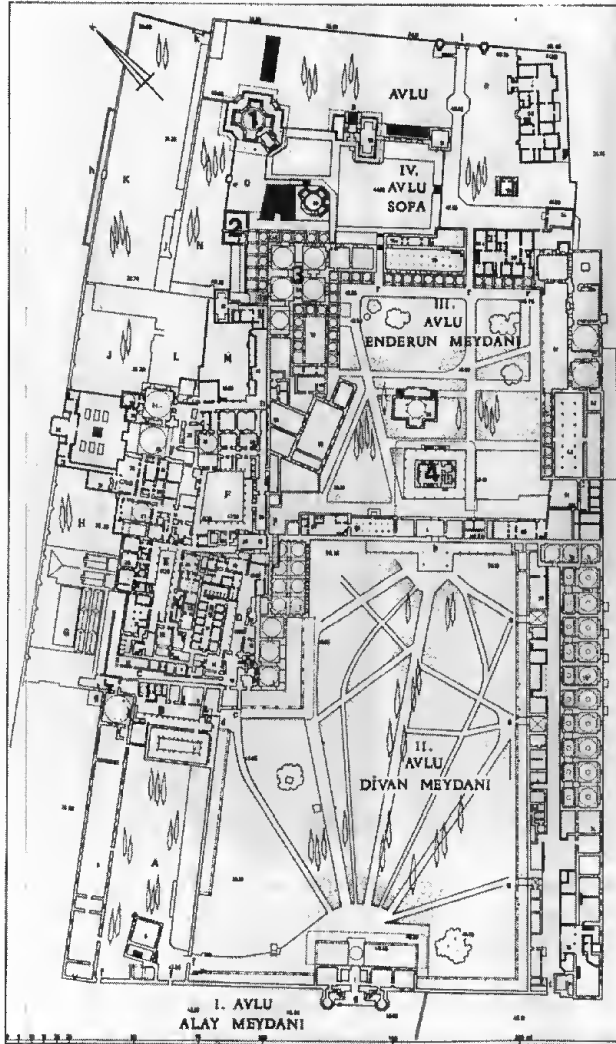
2. Melchior Lorch, Detail from a panoramic view of Istanbul showing the Topkapı Palace, 1559. The building marked 1 is the domed pavilion once occupying the site of the Baghdad Kiosk; 2 is the tower-like pavilion incorporated into the Sünnet Odası in 1641. Leiden University Library, Cod. 1758. (From E. Oberhummer, *Konstantinopel unter Sultan Suleiman dem Grossen* [Munich, 1902], plate 3.)

produced around 1527–28 for Süleyman's palace (fig. 5). The sample includes *cuerda seca*, gold-leaf stenciled monochrome, and underglaze painted tiles of various shapes, sizes, and color schemes that reflect the varied repertoire of the royal ceramicists in Istanbul.²⁹ Like their itinerant predecessors who decorated Ottoman buildings in the fifteenth century, these tilemakers trained by a Tabrizi master were skilled in several techniques. The absence of any reference to tile revetments imported from Iznik in the account books from 1527–28 tells us that this mixed group of tiles was produced entirely by Usta Ali's workshop in Istanbul.

While most of the tiles reassembled on the Sünnet Odası at a later date came from neighboring buildings, some of them appear to have belonged to Süleyman's earlier "new room" which was transformed in 1641 by the heightening of its walls and the extension of its garden façade. Inside the Sünnet Odası, the *cuerda seca*

tile lunettes above two early-sixteenth-century windows that flank the fireplace appear to be part of the original decoration (fig. 6). They resemble the lunettes in Selim I's mosque in Istanbul, built by Süleyman I to the memory of his father between 1520 and 1527 (fig. 7). Underglaze painted blue-white-turquoise cartouches embedded in the original marble door frame also seem to belong to the original building (figs 5, 8). The juxtaposition of various kinds of tiles in different techniques, shapes, and color schemes on a single building shows that the Tabrizi ceramicists settled by Selim I in Istanbul perpetuated a post-Timurid repertoire established earlier in the fifteenth century.

The *cuerda seca* tiles seen earlier, in the 1400's, in Bursa and Edirne reappear in Ottoman public buildings after a long interval in two tombs built around 1520 behind the mosque of Selim I, which has tiled lunette panels (figs 9a-b, 7). Comparable *cuerda seca* tiles, dating



3. Plan of the Topkapı Palace, Istanbul. (1) Baghdad Kiosk; (2) Sunnet Odası (Circumcision Room); (3) Privy Chamber (Pavilion of the Holy Mantle); (4) Arz Odası (Chamber of Petitions). (From S.H. Eldem and F. Akozan, *Topkapı Sarayı. Bir Mimari Araştırma* [Istanbul, 1982], plate 23.)

from the renovation of the Topkapı Palace between 1526 and 1528–29, are preserved at the Sunnet Odası (figs 6, 10), on the Arz Odası façade (fig. 11), and inside the niches of the Baghdad and Revan kiosks (fig. 12) where they were reassembled in the 1630's. *Cuerda seca* tiles also appear at the mosque and bath complex of Kasım Pasha (1526–28) in Bozüyük (fig. 13). They are encountered for the last time in Istanbul in a group of public buildings: the madrasa of Haseki Hürrem Sultan



4. Old photograph of the Sunnet Odası showing the different masonry of its original core (From S.H. Eldem, *Köşkler ve Kasırlar*, vol. 1 [Istanbul, 1969], fig. 220).

(1539) (fig. 14), the mausoleum of Şehzade Mehmed (1543–48) (fig. 15a-b), and the mosque of Kara Ahmet Pasha (early 1550s). Lane correctly attributed this group of *cuerda seca* tiles, which differ from earlier examples in Bursa and Edirne by their body material, white slip, and more radiant colors, to the band of immigrant artisans brought by Selim I from Tabriz in 1514. They are confined to lunettes and rectangular panels, and except for the Kasım Pasha complex in Bozüyük, where tile panels are not organically related to the parts of the building they decorate, they are all in Istanbul. Based on a palette of blue, turquoise, green, white, yellow, purple, and occasionally an unfired brownish red painted over unglazed areas, they feature symmetrically composed stenciled patterns of arabesques, floral palmettes, and geometric motifs.³⁰ Their first examples in the tombs of Selim I's mosque complex date from the early 1520's, when the Tabrizi Master Habib was still alive, and have a more pronounced Timurid flavor (figs 9a-b).

The extensive *cuerda seca* tile revetments of Şehzade Mehmed's mausoleum are no longer confined to small frames, but cover the whole interior (figs 15a-b). They



5. Tile revetments on the Sünnet Odası Façade (From K. Erdmann, "Neue Arbeiten zur Türkischen Keramik," *Ars Orientalis* 1 [1963], fig. 24).

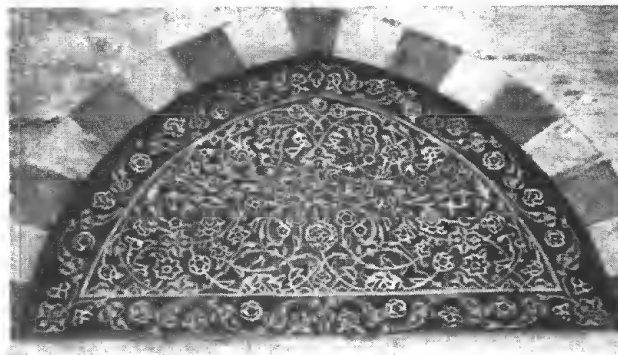
form an illusionistic arcade whose outlines may have been designed by the architect Sinan. They also introduce *saz* leaves and blossoms, popular motifs that appeared in Ottoman textiles and Iznik ceramics in the 1540's, to the traditional vocabulary of abstract arabesques, palmettes and geometric shapes (figs 16, 17a-b, 18). They signal a change of taste that eventually made the *cuerda seca* technique obsolete. This technique, in which lines appear at the intersection of different color fields, did not lend itself well to the newly emerging Ottoman decorative vocabulary. Underglaze painting allowed for much greater expressive freedom and a more spontaneous freehand approach to design. A number of experimental *cuerda seca* border tiles which surround the upper windows of Şehzade Mehmed's mausoleum show an awareness of this technical limitation. Yenişehirlioğlu observed that these unusual tiles, in which designs appear on a white ground, attempt to approximate the visual effect of underglaze painted

ceramics, whose white paper-like ground provided an ideal background for the popular *saz* and floral motifs.³¹

Cuerda seca tiles rather than the more exclusive group of underglaze painted tiles had been used mainly for decorating public and palatial buildings in the early part of Süleyman's reign. The latter appear to have been reserved for palaces and pavilion-like mausolea. Examples of this rare group are found at the Topkapı Palace on the façades of the Sünnet Odası (fig. 5) and the Privy Chamber (Holy Mantle Pavilion) (fig. 19), and in Gebze inside Çoban Mustafa Pasha's mausoleum (fig. 20). Most of them are modular single-unit blue-white-turquoise tiles with meticulously laid-out intricate stenciled designs radiating from a central rosette; they feature lotus palmettes, split-leaf arabesques, scrolls, rosettes, and small blossoms that are quite different from the standard motifs used on blue-and-white or blue-white-turquoise pottery manufactured in Iznik. These relatively uncommon tiles that have no counter-



6. *Cuerda seca* lunettes inside the Sünnet Odası, Istanbul (From Eadem, *Küşkler* vol. 1, fig. 221).



7. *Cuerda seca* lunette from the mosque of Selim I, Istanbul.

parts in ceramic wares have been dated on stylistic grounds to 1530–40 and attributed to the Iznik ateliers which around 1520 had expanded their traditional palette of cobalt blue in two values with the introduction of turquoise.

This common attribution rests on Lane's assumption that the Tabrizi ceramicists who came with Selim I to Istanbul only produced *cuerda seca* tiles. Since the account books from 1527–28 do not mention any tiles imported from Iznik, the group of underglaze painted tiles at the Topkapı Palace of various shapes and color schemes (blue-white-turquoise, blue-turquoise, and dark blue-white) must be attributed to them as well. This conclusion is supported by the lists of chemicals that Usta Ali's workshop in Istanbul (which undoubtedly produced *cuerda seca* and monochrome glazed tiles) used during those years. These lists only cite those materials periodically acquired after being used up, and not a complete inventory of chemicals and tools already available in the workshop. They include silica particles (flintstone, porcelain stone [quartz]), powdered glass, a specially imported clay, crude potash (soda), and large quantities of dross of lead and lead oxides (white and red lead), ingredients which made up the body of underglaze painted Iznik ceramics characterized by a melted frit mixture of quartz, lead, and soda. The same materials, if more finely ground in grinding basins and strained through cloth, could be used in the preparation of a slip acting as a white ground on which to paint. The lists also include the typical materials used in Iznik for a transparent colorless glaze, consisting of a lead-alkali-tin mixture resembling the body frit but using a different percentage of lead and gum as a binding agent.³²

The lists from 1527–28, moreover, cite copper oxide, used as a colorant for turquoise, and cobalt, used for blue, as well as large quantities of gold leaf, lending credence to the argument that Usta Ali's workshop was responsible for producing the underglaze painted hexagonal, rectangular, and cartouche-shaped tiles reassembled on the Sünnet Odası façade with gilt monochrome tiles (figs 5, 8, 21–22). The blue-white-turquoise hexagonal tiles, set with dark-blue gold-stenciled triangles to form stars, might originally have been made for Süleyman's Arz Odası, whose wall paintings, according to the mid-sixteenth-century Venetian observer Caterino Zeno, consisted of golden stars over an ultramarine background. Contemporary descriptions indicate that tiles decorating its interior were gold-stenciled and based on a blue-and-white color scheme. The Austrian ambassador Cornelius Schepper refers to



8. (above and right) Underglaze cartouches on the marble door frame of the Sünnet Odası, Istanbul (From Erdmann, "Neue Arbeiten," figs. 30–31).

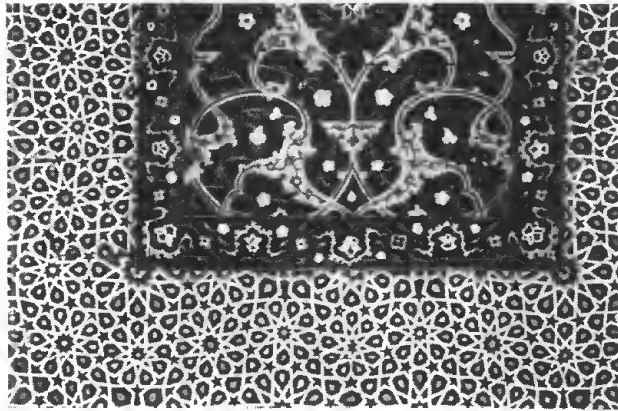
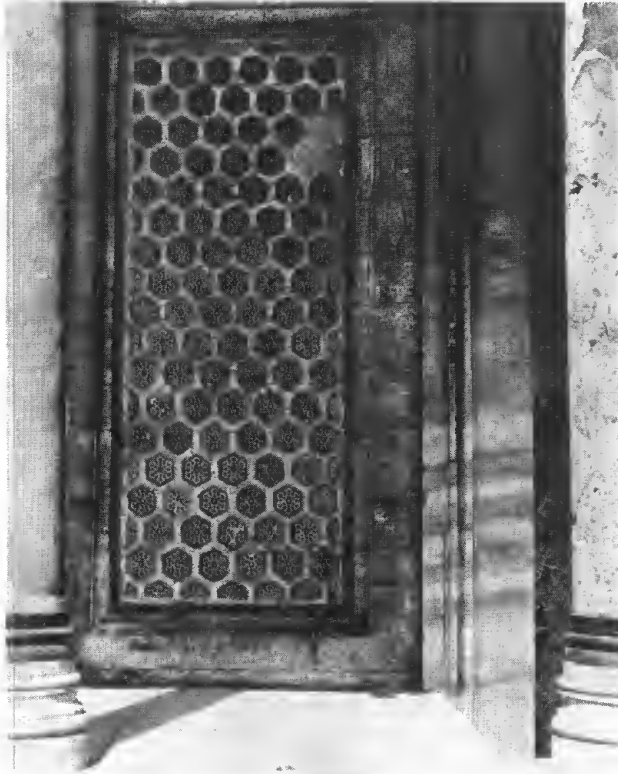


them in 1533 as "d'ouvrages mosaïques semés d'azur et d'or," and the late-sixteenth-century Venetian ambassador Maffeo Veniero describes them as "quelle maioliche loro dorate." That the repertoire of the workshop in Istanbul included heavily gilded underglaze blue-and-white ceramic objects in the early 1520's is suggested by a matching mosque lamp and ball coming from the mosque of Selim I in Istanbul which is otherwise decorated with *cuerda seca* tile revetments. These objects are unusual when compared to Iznik lamps and balls, in that the painting in blue is confined to a narrow inscriptional frieze and the remaining white ground is completely covered with gilding applied over the glaze.³³

The earliest examples of underglaze-painted tiles based on a blue-white-turquoise color scheme are preserved on the garden façade of the Holy Mantle Pavilion (fig. 19). Its dadoes are faced with Cairene marble revetments, which the sixteenth-century historian Lokman says were installed by Selim I after his conquest of Mamluk Egypt (ca. 1517–20). This suggests that the accompanying tiles, which belong to the original decorative scheme, must have been produced around the

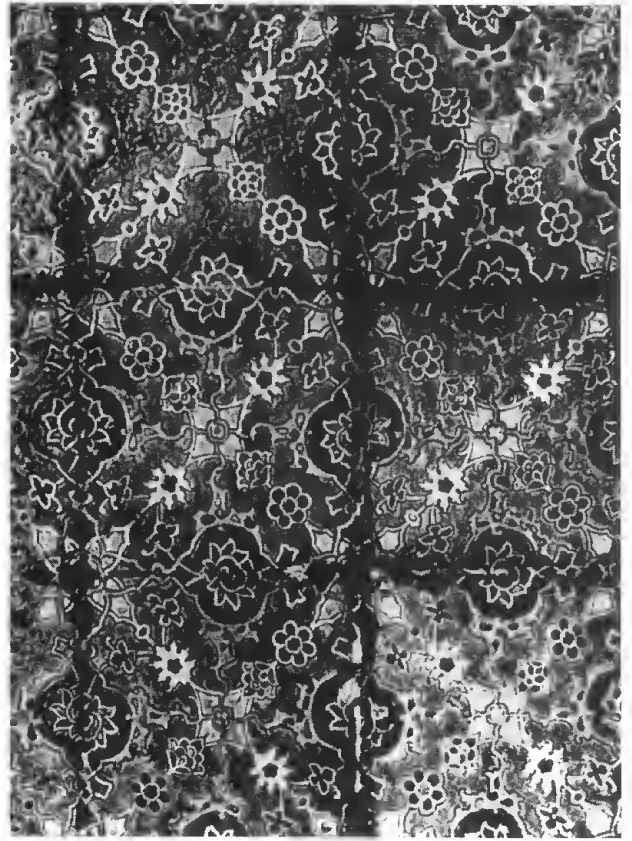
same time. They are related both technically and stylistically to the Sünnet Odası tiles made a few years later, differing from them only in their use of a greenish-black (as opposed to the latter's dark blue) outline. They appear to be the earliest underglaze tile revetments attributable to the ceramicists Selim I brought from Tabriz.³⁴ The Çoban Mustafa Pasha complex in Gebze, faced with spoliated Cairene marble revetments like the Holy Mantle Pavilion, also has rare examples of underglaze blue-white-turquoise tiles inside its mausoleum (ca. 1528–29) that are attributable to Usta Ali's workshop; they closely resemble some of the tiles on the Sünnet Odası façade made in the same years (fig. 20).

The spiral designs on some of the border tiles in Gebze are also reminiscent of the so-called Golden



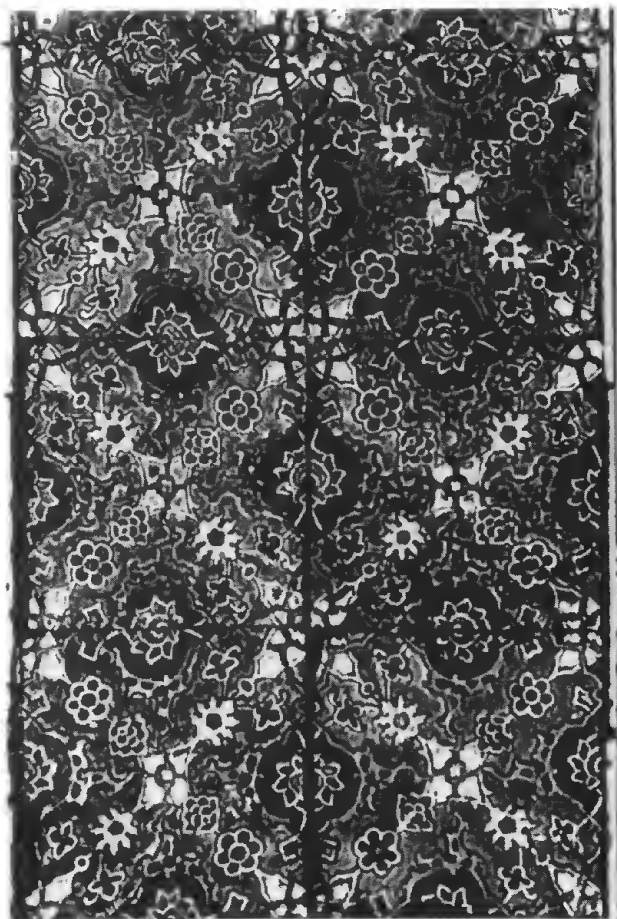
9a-b. *Cuerda seca* tiles from tombs behind the mosque of Selim I, Istanbul.

Horn wares, dated to 1529 through a signed bottle in the Goodman collection. The similarity of these fine spiral stems with their rosettes and curling leaves to scroll-work patterns decorating Süleyman's tughras has often been noted and has suggested the hand of court designers. The account books from 1527–28 document a close



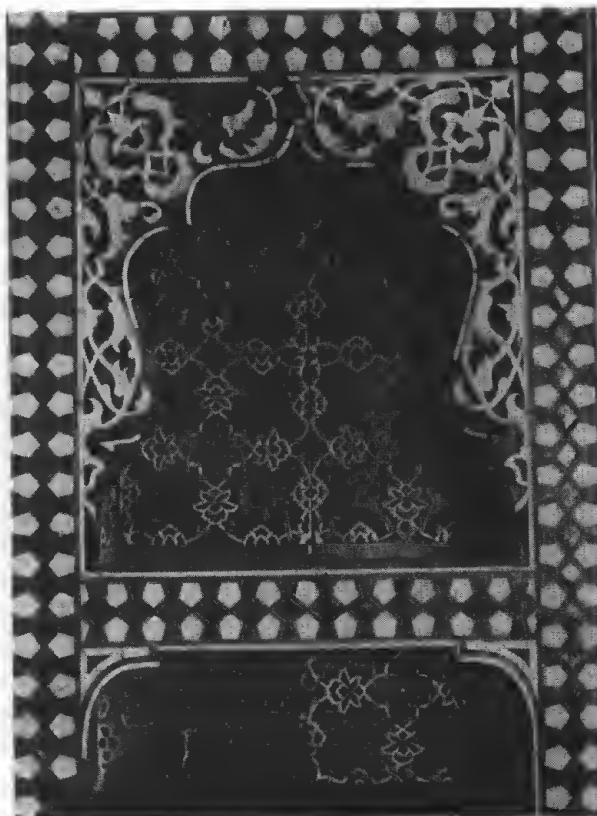
10. *Cuerda seca* tiles from the Sünet Odası façade, Istanbul.

cooperation between ceramicists (*kāşīgerān*) and court designers (*naqqāşān*), which makes it tempting to attribute the origin of these wares to the *ehl-i hīref* ceramicists of Istanbul. Recent attempts to link these spiral-patterned ceramics, of which many examples were once discovered near the Golden Horn, to Iznik and Kütahya have thus to be reconsidered. Sherds found in Istanbul, Kütahya, and Iznik indicate the immense popularity of these ceramic wares of different quality levels, which were also copied by Italian ceramicists in the 1520's. Given the court origin of their designs, it is doubtful whether the whole group, which also includes a fragmentary tile, should be assigned to a single center. Following Lane, scholars have assumed that there could have been no contact between Iznik and Master Habib's workshop, which was thought to have specialized in *cuerda seca* tiles. However, if one accepts that the latter also produced underglaze ceramics, an inevitable exchange between Istanbul and Iznik has to be considered. Such an exchange could in fact explain some of the

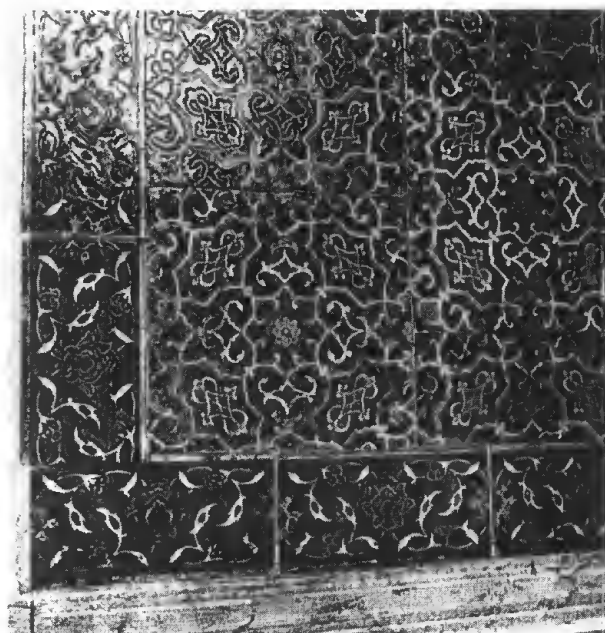


11. *Cuerda seca* tiles from the Arz Odası façade, Istanbul.

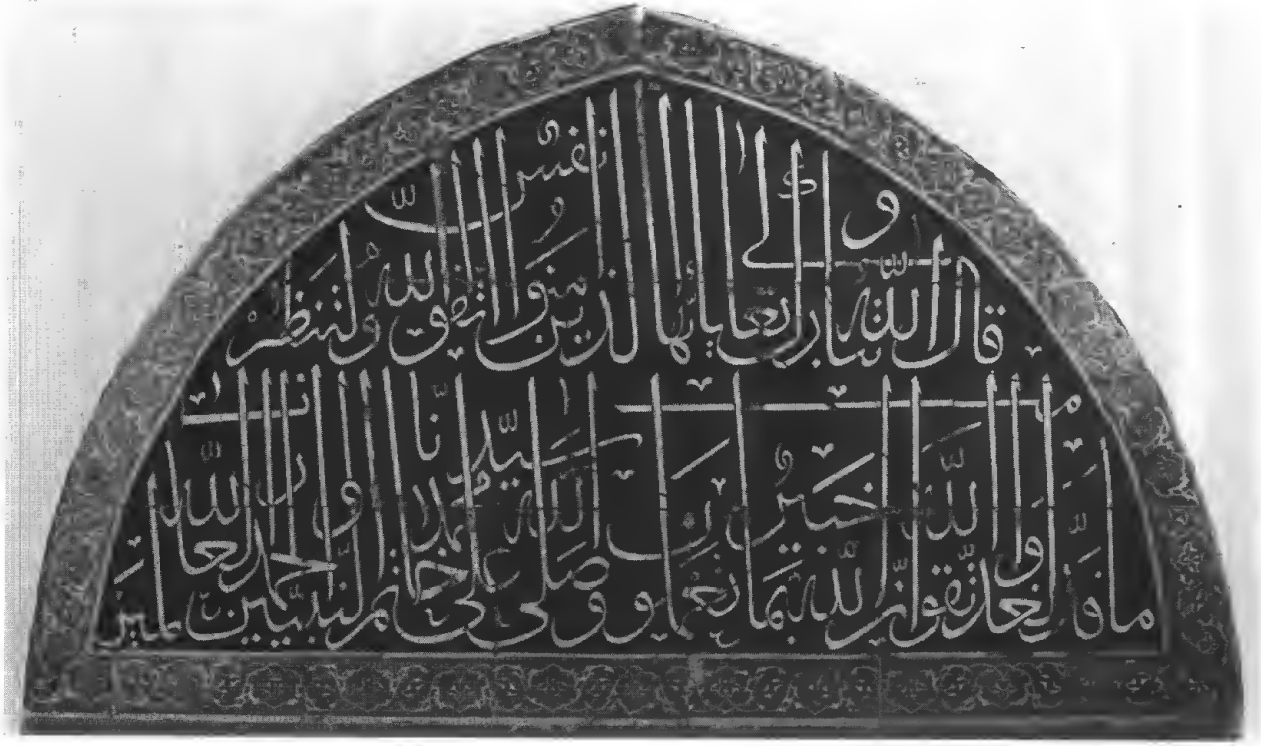
unaccounted for transformations observed in Iznik wares in the 1520's, a period of intense experimentation in which a new color scheme, novel motifs, compositions, and shapes were introduced to the traditional pottery repertoire. Recent technical analyses have shown that the alkaline-lead frit of Iznik pottery was technically independent from the alkaline-lime frit of the masters of Tabriz. The royal workshop in Istanbul, however, did use a lead-alkali frit like Iznik's, as the analysis of a tile from the mausoleum of Selim I in Istanbul has shown, a conclusion also supported by the large amounts of lead cited in the account books from 1527–28.³⁵ This technical similarity increases the probability that the *ehl-i hiref* workshop in Istanbul had a



12. (above) *Cuerda seca* tiles inside the niches of the Baghdad Kiosk, Istanbul.



13. (right) *Cuerda seca* tiles from the minbar of the Kasım Pasha mosque, Bozüyük (From Erdman, "Neue Arbeiten," fig. 13).



14. *Cuerda seca* lunette from the madrasa of Hürrem Sultan, Istanbul (Çinili Köşk 41/543).

direct impact on Iznik where less accomplished versions of blue-white-turquoise tiles, or Golden Horn type designs, seem to have been made. The give and take between these two parallel centers of ceramic production eventually culminated in the bold experiments pioneered in Iznik during the late 1530's and 1540's.

Attributing the mixed group of repeating modular underglaze painted *Sünnet Odası* tiles to Usta Ali's workshop in Istanbul also raises the question of when and where the five painted panels on the same façade were produced (figs 22–24). These enormous single-piece rectangular tiles measuring more than a meter in height and superbly painted in blue and turquoise over a white background exemplify at its best the *saz* style that was rooted in a Turcoman tradition developed in fifteenth-century Tabriz and Herat. Featuring birds and Chinese kylins among feathery *saz* leaves, lotus palmettes and rosettes, four of these tiles are based on two pounced designs used to create pairs in a mirror-reverse image, proving the use of stencils drawn by court designers.³⁶ The fifth rectangular tile panel features *saz* foliage with birds springing from a vase. These tiles have been dated on stylistic grounds by Lane to

1530–40, by Erdmann to the mid sixteenth century, by Denny to between the 1550's and 1570's and by Rogers to 1560–80. Attempts to date the *saz* style on the basis of the Murad III album in Vienna and the argument that this style was confined to the arts of the book before the 1550's ignore its appearance on objects dating from the 1530's.³⁷ The lacquer binding of a *Khamse* of Mir Ali Shir Neva'i produced at the Ottoman court in 1530–31, for example, already exhibits feathery *saz* leaves impaling lotuses and composite rosettes.³⁸

The *saz* style is associated with the Tabrizi painter Şah Kulu, who is listed as the highest-ranking court designer (*naqqāşān*) in an Ottoman wage register from 1526. There is no reason to believe that there was any lapse of time before it was applied to tiles. Şah Kulu himself was well acquainted with the ceramic medium, and once presented a large plate and six small ceramic cups he had decorated as gifts to Süleyman. In this respect he was following the footsteps of earlier Timurid artists who had also experimented with ceramics; for example, Mawlana Hajji Muhammad Naqqash, an illuminator attached to Sultan Husayn Bayqara's court in Herat, had made porcelain vessels which came close



15a. Interior of the Şehzade Mehmed mausoleum, Istanbul.

to those of China.³⁹ The Sünnet Odası tile panels were a creative translation of album drawings in the *saz* style into the medium of underglaze-painted tiles. That album designs were commonly used in architectural decoration is suggested by blue-and-white *grisaille* murals with birds and animals among foliage above faience dadoes, frequently depicted in Safavid and Ottoman miniatures of the sixteenth century. Such blue-and-white mural paintings are also preserved in some Tim-



15b. Detail of *cuerda seca* tile revetments inside the Şehzade Mehmed mausoleum, Istanbul.



16. Ceramic bowl of the so-called Damascus type (From A. Lane, *Later Islamic Pottery* [London, 1971], fig. 37).

urid buildings. Their application to tiles sharing a similar color scheme appears to have been inspired by a tradition of fresco painting of which few examples have survived.⁴⁰

Recently, Mahir and Çağman have proposed an earlier dating of around 1530 for the Sünnet Odası tile panels, which they attribute to Şah Kulu. This artist's direct involvement cannot be documented, but the five pictorial tile panels certainly exemplify the closest possible rapport between the *saz* style as practiced in black-line album painting and in ceramics. This could only have been achieved through the close cooperation be-



17a. Kemha (silk brocade) kaftan of Prince Bayezid (d. 1562), mid-sixteenth-century, Istanbul (Topkapı Sarayı Müzesi, 13/37).



17b. Detail of a kemha kaftan, mid-sixteenth-century, Istanbul (Topkapı Sarayı Müzesi, 13/529).



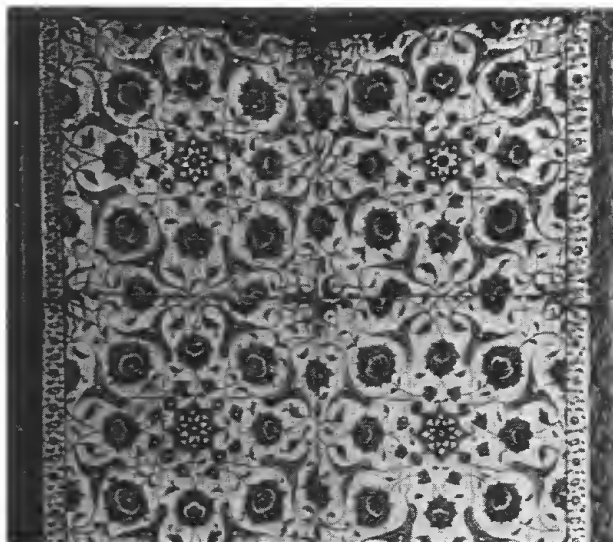
18. Costume of a Turkish lady based on drawings made during the embassy of Gabriel d'Aramont, ca. 1551 (From N. de Nicolay, *Les Navigations, pérégrinations et voyages faits en la Turquie* [Lyon, 1567]).

tween ceramicists and court designers that is attested in the account books from 1527–28. The wage scale of the court designers who assisted Usta Ali indicate that artists of different caliber were employed. The large quantities of paper and numbers of scissors listed among the expenses of the royal ceramics workshop confirm the use of stencils drawn by court designers. The stencils were probably transferred to simpler repeating modular tiles by the lower paid *nakḳāş*, but the five painted panels betray the hand of a master, who might well have been Şah Kulu himself.⁴¹

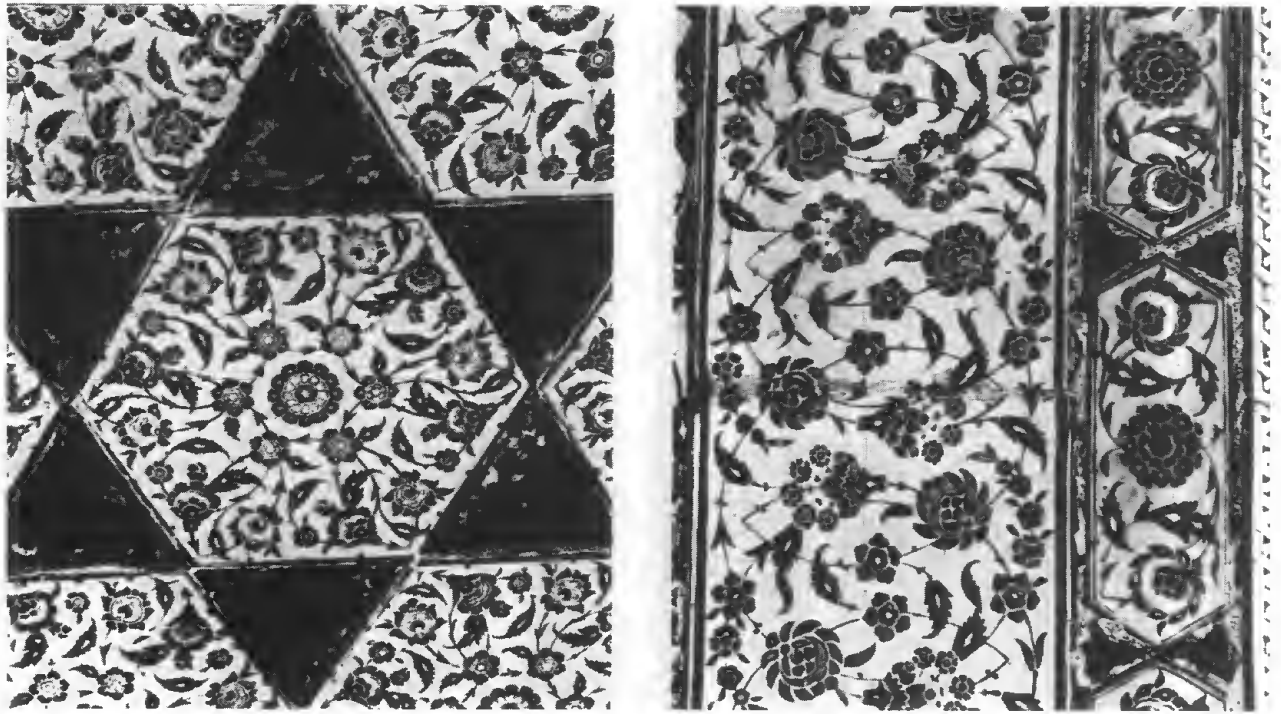
The fine draftsmanship and the vein-like feathery detailing of vegetation in these tile panels clearly differ from the simplified dotted stippling found on Iznik tiles made after the 1550's. Their complex texturing, subtlety of design, and unusually large size are not encoun-



19. Underglaze tile and marble revetments on the façade of the Holy Mantle Pavilion, Istanbul.



20. Underglaze tiles inside the mausoleum of Çoban Mustafa Pasha, Gebze (From Erdmann, "Neue Arbeiten," fig. 17).



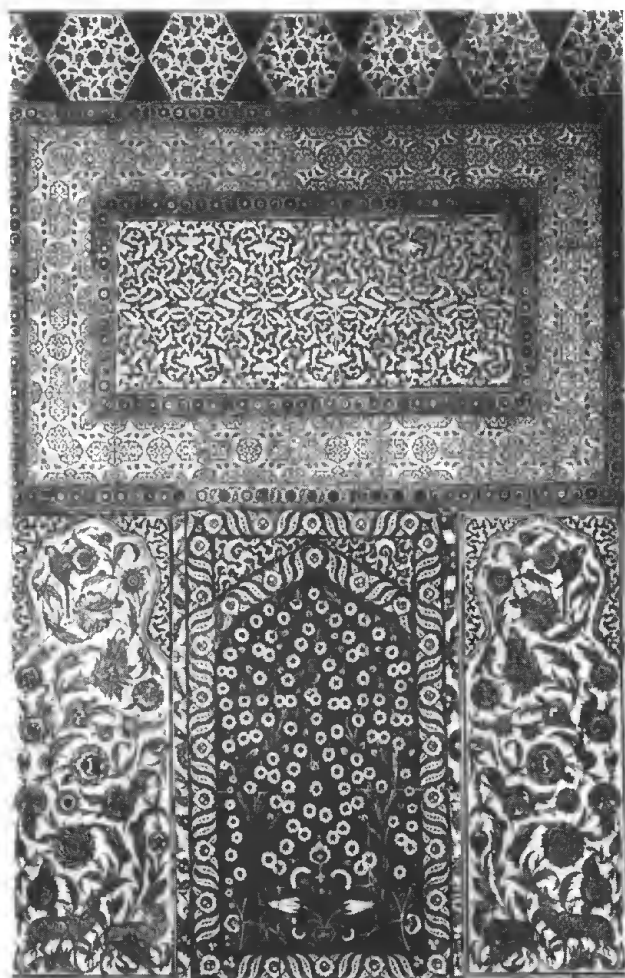
21. Tiles on the Sünnet Odası façade, Istanbul (From Erdmann, "Neue Arbeiten," figs. 25–26).

tered in any polychrome Iznik tiles of standardized square or rectangular shapes after the first half of the sixteenth century. Because no building of importance was added to the Topkapı Palace between the late 1520's and the last quarter of the sixteenth century, for which tile revetments of such high quality could have been commissioned, they could only have been made in Istanbul around 1527–28 for Süleyman's "new kiosk" which burned in 1633. Its reconstruction is referred to as the "rebuilding of the burnt pavilion" (*nev-sâhten-i kaşr-i muhterik*) in a royal account book from Murad IV's reign. The building that replaced it is the Baghdad Kiosk, completed in 1638. A few years later in 1641 Ibrahim I renovated the neighboring Sünnet Odası, on the façade of which the rescued tiles of Süleyman's original pavilion are now displayed. It is therefore not surprising that the Baghdad Kiosk, modeled on Süleyman's prestigious pavilion (whose marble revetments, tiles, and lanterned dome are cited in the account books from 1527–28), was faced with tile revetments directly paraphrasing those of its predecessor.⁴²

Dating the painted tile panels to 1527–28 is justifiable not only on stylistic, but also on technical grounds. Turquoise was introduced to the traditional blue-and-

white palette just before 1520. Moreover, the use of dark blue lines in these tiles is in keeping with lists of chemicals used by Usta Ali's workshop, where the iron chromite that produced a black line in later Iznik ceramics is entirely absent. The restricted color scheme of these panels is identical with that of the blue-white-turquoise underglaze painted tiles reassembled on the Sünnet Odası façade, and is typical of the phase preceding the discovery of red. The white Chinese clouds on a dark blue background, which decorate the arch spandrels of these rectangular panels, match a group of modular tiles with identical white cloud motifs on dark blue on the same wall (figs. 22–23). Thus, the pictorial panels belong together with the varied group of underglaze painted Sünnet Odası tiles which were produced simultaneously with gold-stenciled monochrome and *cuerda seca* tiles for the various buildings of Süleyman's palace. That they were used in conjunction with tiles based on a different color scheme is suggested by the niches in the Baghdad Kiosk faced with *cuerda seca* tiles attributable to Usta Ali's workshop (fig. 12).

Instead of seeing these five superbly painted tile panels as forerunners of the classical Iznik style, it is more accurate to regard them as the final flowering of a



22. Tiles on the Sünnet Odası façade, Istanbul.

post-Timurid aesthetic developed under Ottoman patronage by Tureoman artists from Tabriz and Herat who defined the dominant taste of court workshops in the early part of Süleyman's reign. This tradition gradually died out with the first generation of immigrants. Most of the post-Timurid tile revetments produced by the royal ceramics workshop in Istanbul appear on structures built by the chief architect Alaüddin, not surprisingly known as Ali of Iran, who held the post from the end of Selim I's reign until his death in 1538, when the architect Sinan succeeded him. It was under Alaüddin's supervision that the royal ceramics workshop of Istanbul, steeped in Tabrizi traditions, in co-operation with Turcoman designers of the *naqqāshhane* headed by Şah Kulu, found a receptive artistic environment in which to flourish.



23. One of the five underglaze painted tile panels on the Sünnet Odası façade, Istanbul.

The relatively small number of technically and stylistically varied tiles in multiple color schemes produced in Istanbul's royal ceramics workshop are of consistently high quality, unlike Iznik tiles, whose quality varies according to level of patronage. Both the Şehzade mausoleum tiles and the Sünnet Odası pictorial panels are



24. One of the five underglaze painted tile panels on the Sünnet Odası façade, Istanbul.

masterpieces of the *cuerda seca* and underglaze painting techniques respectively. Why then was the production of architectural tile revetments for Ottoman buildings abruptly transferred to the Iznik potteries around 1550? The account books of the Süleymaniye complex, built between 1550 and 1557, indicate that most of its ceramic revetments were ordered from Iznik (*kāşî-yi iznik*), and only a small proportion were made in Istanbul (*kāşî-yi istanbul*).⁴³ The latter were the color glazed mono-

chrome tiles that can still be seen on the minarets, and *cuerda seca* tiles used in places of secondary importance, such as behind the door of Hürrem Sultan's mausoleum.

The decorative programs of both Hürrem's mausoleum and the Süleymaniye mosque are dominated by underglaze painted Iznik tiles introducing red — the favored color for Ottoman textiles and carpets — to the previous blue-white-turquoise color scheme. They were created at a time when the classical Ottoman style was emerging in all artistic media, and this technical revolution set a new fashion for architectural decoration. The post-Timurid repertoire of Istanbul ceramicists was soon obsolete. The mat-surfaced *cuerda seca* tiles with their blue-green-yellow color scheme, originally intended for the brick-based architecture of Iran and Turan, were abruptly abandoned in favor of the glossy white-ground underglaze Iznik tiles which harmonized more successfully with the white stone and marble revetments of Sinan's light-filled masonry buildings. Underglaze painted tiles previously juxtaposed to monochrome or polychrome glazed tiles and used exclusively in palaces and mausolea became the dominant mode of decoration for Ottoman public and palatial architecture. The timing of this radical departure from norms established in the Timurid world, and perpetuated with different emphases in the sixteenth century by the Safavids and Uzbeks, may not have been accidental. The Süleymaniye complex was built at a time of intensified conflict with the Safavids as an architectural statement of the Ottoman Sunni orthodoxy. It introduced a new decorative skin of tiles that differed strikingly from Iranian models.⁴⁴ This distinctive new decorative skin, which was also used to transform the major Islamic sanctuaries in Mecca, Medina, and Jerusalem, became a stamp of Ottoman identity.

How the discovery of red — possibly reflecting an attempt to reproduce the aesthetic effect of manuscript illuminations in blue and red on white paper — came about is still unclear.⁴⁵ This technical innovation must have been a decisive factor in the transformation of Iznik by court patronage into the leading center for imperial tileworks where a new tile aesthetic was pioneered. Unlike Alaüddin's buildings, Sinan's have extensive tile-revetment programs, a trend first encountered in the Şehzade Mehmed mausoleum. As Yenişehirlioğlu has pointed out, Sinan's role in conceptualizing this new approach to architectural decoration, in which ceramics were carefully designed to articulate their architectural support, can not be doubted. That

Sinan may have been in charge of the ceramic industry in Iznik is strongly suggested by the fact that in 1640 Iznik tilcmakers and potters were under the jurisdiction of the chief court architect (*mi'mārbaşı*); most of the sixteenth-century court orders sent to the qadi and chief ceramicist in Iznik do reflect the concerns of chief architects. After the Süleymaniye's completion, a boom in the Ottoman construction industry headed by Sinan necessitated the rapid production of large amounts of tile revetments. The Iznik industry, with its wide production capacity, proved to be much better equipped for this task than the small royal workshop in Istanbul. The presence in that city of a community of ceramicists with its own kilns and established methods of production was a considerable advantage for the Ottoman court whose patronage around 1550 turned the production of pottery vessels from a major occupation to a by-product of the tile industry.⁴⁶

Unlike the specialized ceramics workshop in Istanbul, whose traditional repertoire remained bound by a relatively conservative post-Timurid taste, the Iznik potteries had already initiated bold experiments around 1540 with the so-called Damascus wares which introduced an increasing variety of colors and motifs (fig. 16). Fashionable designs encountered in several artistic media in those years, consisting of *saz* leaves intertwined with large rosettes, and exuberant representational flowers such as roses, tulips, hyacinths, and carnations (exemplifying a floral aesthetic associated with the artist Kara Memi who illuminated royal manuscripts between the 1540's and 1560's and became head of court designers in 1552) made their appearance in tiles for the first time in the "Damascus" group. The boldly enlarged designs of this group of ceramics exhibited a new spirit of painterly spontaneity, next to which the intricate formal compositions and meticulously executed stenciled motifs of Istanbul's *ehl-i hîref* ceramicists must have appeared static.⁴⁷ Their magnified motifs had an immediate visual impact from a distance, a quality which Sinan must have found more suited to architectural decoration than the minute Timurid-flavored designs of Istanbul ceramicists that were meant to be examined close up and betrayed the manuscript illuminator's preoccupation with intricate detail.

The enlarged motifs and lively polychromy of Iznik ceramics in the so-called Damascus phase appear to have been inspired by the medium of textiles. Ottoman *saz*-style textiles from the 1540's are much more elaborate in their designs than *saz*-style pottery (figs 17a-b, 18). An unprecedented expansion in Istanbul's royal

textile output in the 1540's and 1550's can be traced from *ehl-i hîref* registers, which record artisans increasing from 27 in 1526, to 105 in 1545, and to 156 in 1557. This increase no doubt reflected the intense creative energy directed by the court to textile production during the grand vizierate of Rüstem Pasha (1544–53; 1555–61) who opposed from an economic point of view the large-scale importation of luxury textiles from Italy that had been characteristic of the earlier part of Süleyman's reign when Ibrahim Pasha was grand vizier (1523–36).⁴⁸

Textile designers (*nakşbendân* or *nakşbendler*), who are frequently cited in Ottoman wage registers, must have enlarged the tiny patterns provided by court designers and adapted them to the complicated warps and wefts of textiles. *Dispacchi* sent to the Venetian Senate from Pera in the second half of the sixteenth century show that patterns drawn on paper together with written instructions were often sent to Venice for the manufacture of textiles ordered by leading Ottoman court officials.⁴⁹ Such patterns were also sent from Istanbul to the tile workshops of Iznik which like Istanbul's royal textile workshop flourished during Rüstem Pasha's grand vizierate. Imperial firmans from the second half of the sixteenth century frequently refer to "examples" (*nümüne*) that were dispatched from the capital to the Iznik potteries. These appear to have been designs drawn to scale on paper according to the measurements of specific building projects, but they might occasionally have been accompanied by sample tiles as well.⁵⁰ The tile revetments produced in 1593 for the Yalı Kiosk at the Topkapı Palace were based on designs on paper prepared by Bali, a non-Muslim designer of patterned silk brocades (*kemha*), and sent to Iznik from Istanbul together with forty-nine different stenciled designs prepared by Ressam Mehmed Çelebi. Documenting the role of a textile designer in drawing tile patterns has, of course, wide-reaching implications for the often noted similarities between Ottoman textiles and Iznik tiles from the 1540's onward. In the words of the eighteenth-century court historian Küçük Çelebizade, it was the wish to revive these textile-like ceramics of Iznik (*kumâş-i kâşî gibi münakkaş ve hoş kumâş kâşîler*) that led to the establishment of the workshop at Tekfur Saray.⁵¹

Iznik's distance from the capital, where most of the buildings of Sinan and his successors were concentrated, required a new type of long-distance collaboration between ceramicists, court designers, and architects. That circumstance inevitably spelled an end to the meticulous detail of the Sünnet Odası painted panels,

which were the products of a much closer rapport between court designers and ceramicists. It also explains the standardization in Iznik of tile shapes as square and rectangular, making them easier to transport and to fire in the small kilns designed for ceramic wares. A number of firmans from the last quarter of the sixteenth-century ordering Iznik workshops to stop producing ceramic wares for more lucrative market prices so they can concentrate on manufacturing tiles for royal buildings in Istanbul at government-fixed prices suggest that the same kilns were used for firing both tiles and pottery. The court had an increasingly difficult time making Iznik ceramicists produce custom-made tile panels based on complex designs prepared by court artists; mass-produced modular repeat tiles and wares with freehand patterns destined for the domestic market or for export were more profitable.⁵²

With the establishment of Iznik as the leading center for imperial tileworks, the numbers of the small group of ceramicists (*kāşīgerān*) in the capital began to dwindle. The 11 ceramicists recorded in the *ehl-i hīref* register from 1526 drop to 8 in 1527–28,⁵³ to 4 in 1557–58,⁵⁴ to 3 in 1566,⁵⁵ and to 2 in 1584.⁵⁶ Their numbers are raised to 5 in 1596–97,⁵⁷ but again drop to 4 in 1598, to 3 in 1599,⁵⁸ and to 2 in 1608.⁵⁹ The functions this small group of ceramicists performed are unclear, but they probably saw to the ordering of ceramic tile revetments from Iznik, prepared the *nümūnes* mentioned in documents, and fixed the finished tiles on buildings. A firman sent by Selim II to the qadi of Iznik in 1570 orders five skilled ceramicists (*üstād kāşīciler*) named Hacı Memi, Hacı Mehmed, Fazlı Halife, Yazıcıoğlu, and Ahmed sent with their tools to the sultan's court. These Iznik ceramicists were probably being called to the capital for the decoration of an important building, perhaps for the Selimiye mosque which was under construction in Edirne.⁶⁰ There may well have been other such cases.

Several conclusions can be drawn from the shift in the Ottoman tile industry from the employment of itinerant Iranian artisans in local kilns, to the establishment of a centralized royal workshop in Istanbul, and finally to the appropriation of the semi-autonomous Iznik potteries. One of them is that changes of taste went hand in hand with transformations in the circumstances of production and patronage. The Ottoman archives (which are still a largely untapped source of documentation that does not exist for any other period of Islamic art) provide many clues. Through successive court registers one can trace fluctuations in the relative importance of various luxury industries in Istanbul. While the royal

workshop of silk brocades in the capital was expanding in the 1540's, the ceramics industry was markedly contracting, and eventually it moved entirely to Iznik. The reasons behind the selection of Iznik at precisely a time of increased demand for architectural tile revetments need to be investigated further, but economic and organizational factors no doubt played their part. The existence of flourishing potteries and of the necessary materials nearby, especially of wood for firing the kilns, appears to have tipped the balance in favor of Iznik, since the provisioning of wood to Istanbul had become a major administrative problem when the city's population exploded in the second half of the sixteenth century. However, the development of a new tile aesthetic to which the Iznik workshops rapidly responded seems to have been the determining factor in the court's decision to transfer its patronage from Istanbul to Iznik.

Tracing the development of the Ottoman tile industry shows that the evolution of ceramic tiles was not a simple process that can be charted by a chronological and typological classification of tiles according to technique, color scheme, and style — the typical procedure in current scholarship. Such a taxonomic approach leaves crucial questions about the mechanisms of artistic innovation, transformations of taste, and their meaning in the larger context of Ottoman culture unexplored. Since a set of tiles produced for each architectural project could be quite varied up to the 1550s, separating them into different categories can blur the larger picture. The relationship between architectural tiles and ceramic wares, which often tend to be lumped together in the same analysis, has also to be reconsidered. This poses a methodological problem especially for the period before 1550 when the connection between the two is not so obvious; it was only in the second half of the sixteenth century that the production of ceramic wares became an offshoot of the tile industry.

Establishing the existence of multiple centers of production growing out of different workshop traditions and supported by different kinds of patronage calls for a change of paradigm in the study of Ottoman tile decoration. Identifying the products of the *ehl-i hīref* ceramicists in Istanbul, who produced a small number of tiles and objects of consistently high quality from the end of Selim I's reign to the mid sixteenth century, challenges the common assumption that underglaze painted ceramic wares and tiles followed a continuous linear development in Iznik (as if that city had some sort of a monopoly over the underglaze technique). This means that more subtle distinctions have to be developed in the

study of underglaze painted pottery and tiles to differentiate between separate traditions.

The technical examination of a larger sample of underglaze tiles and ceramic objects, including the ones attributed to the masters Habib and Ali in this article, may reveal differences in the glaze compositions and body structures of those made in Istanbul and those in Iznik. The lists of ingredients provided in the account books of 1527–28 are of crucial importance for such a project, especially since no treatise on ceramic production like that of the Kashani tilemaker Abu'l Qasim (1301) exists for the Ottoman period. These lists suggest that the type of alkali (potash) used in the Istanbul workshop was different from the one used by Iznik potters, a preparation of soda from Afyon Karahisar known as “bora” (potassium-sodium carbonate with some chlorine and sulphate). If such compositional differences were to be firmly established, one could identify the products of the Istanbul workshop more precisely, understand the nature of its relationship with the ceramic workshops in Iznik, and clarify the mechanisms underlying the evolution of taste from an international Timurid vocabulary to a classical Ottoman synthesis.⁶¹

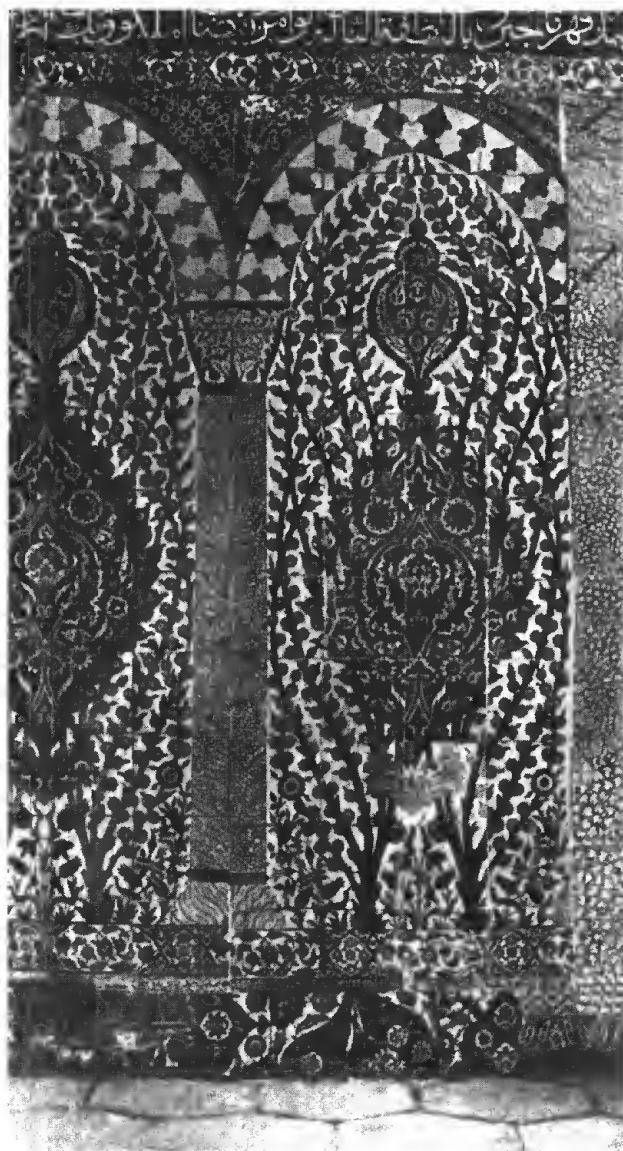
Classical Iznik tiles based on a color scheme of blue, turquoise, emerald-green, and red, executed with a black line over a white ground, transformed the traditional palette for tiles established over the centuries and led to the abandonment of other tiling techniques. Their appearance marked the Ottoman culture's selection and canonization of a single technique and color scheme as the most appropriate mode of expression for a new floral aesthetic in tile decoration. Minute detailing and intricacy of design were lost in favor of legibility from a distance, achieved through magnified scale and contrasting bright colors. Palmettes, arabesques, geometric patterns, and Timurid chinoiserie which had dominated the abstract decorative vocabulary of the Islamic world since the fifteenth century were subordinated to a distinctive floral genre re-creating an atmosphere of gardens indoors. The Yah Kiosk's unpublished account books show that by the late sixteenth century the abstract “*rûmî*” and “*hi'âyî*” motifs typical of the international Timurid style were accompanied by representational ones such as grapes, tulips, and imitation marbles which came to define the distinct character of the Ottoman decorative vocabulary. Angular geometric patterns and the Kufic script which had dominated medieval Islamic ornament were completely swept away by curvilinear designs and cursive monu-

mental thuluth inscription panels designed by such renowned calligraphers as Ahmed Karahisari and his student Hasan Çelebi (see Appendix II).⁶²

The standard square and rectangular format of Iznik tiles also displaced common Islamic tile shapes such as hexagons and triangles arranged to form stars. Unlike hexagonal tiles suited to single-unit radial compositions, the new square ones were better adapted to continuous multi-unit compositions. Forming transparent screens with gardens seen through illusionistic marble arcades or window-like openings, the new Iznik tiles differed radically from the tile revetments of Iran and Turan which concealed the architectonic structure of buildings like an opaque carpet hanging (fig. 25). They articulated the architectural programs of Sinan's stone buildings like moldings, and “Mediterraneanized” a tradition of tile decoration that had originally been formulated for a brick-based architecture. They signaled a shift from the *kitābhāna*-generated Timurid tile aesthetic that had reflected the primacy of the art of the book, to one that stressed the primacy of architecture.

Neither the royal ceramics workshop in Istanbul nor the provincial Ottoman tile industries were able to survive Iznik's competition. The former disappeared; the latter were transformed overnight. The tile lunettes of Süleyman's mosque in Damascus (1554–55) repeat traditional stenciled designs seen earlier in the *cuerda seca* lunettes of the Kara Ahmed Pasha mosque in Istanbul, but in the more fashionable underglaze technique. Their color scheme shows an attempt to imitate white-ground underglaze painted Iznik tiles, even though they fail to reproduce the brilliant white slip and the bright red. Their lower quality in comparison to the more sophisticated designs and clear colorless glaze of Iznik products was apparent to the Ottoman observer Mehmed ibn Aşık who wrote in 1585: “The vases, vessels, tiles, and especially cups of Iznik are comparable to the wares of China in terms of their high aesthetic quality (*kemāl-i letāfet*), but they differ from those manufactured with white clay in Damascus. The ones made in Iznik are more elegant (*nāzik*) and have a finer glaze (*sırçası laṭifdūr*).”⁶³ The provincial tile industry of Diyarbakır also abandoned in the mid sixteenth century its traditional repertoire, which had included both *cuerda seca* and underglaze specimens, and began producing lower-quality imitations of prestigious Iznik tiles.⁶⁴

Iznik tiles and their imitations signaled the formation of a classical Ottoman style in the decorative arts and architecture around 1550, at a time when both European and Iranian artistic models that had been previously



25. Iznik tile panel decorating a wall at the vestibule of the Murad III Pavilion in the Harem of the Topkapı Palace, Istanbul, last quarter of the sixteenth century.

sponsored by an eclectic court culture were merged into a powerful local synthesis.⁶⁵ This phenomenon coincided with the gradual replacement of Persian — which had been the dominant literary language of the court since the late fifteenth century — with Ottoman-Turkish during the second half of the sixteenth century, as a new cultural identity was defined. The creative transformation of the Timurid artistic heritage by the Ottomans was not unlike the formation of a distinctive aesthetic in Mughal stone architecture and its decoration in seventeenth-century India. There, too a representational floral style in architectural decoration came to replace abstract Timurid geometric patterns and arabesques as the creative energies of imported Safavid and Uzbek artisans working together with local Indian craftsmen coalesced into a new synthesis. Like the Iznik canon formulated almost a century earlier, Mughal *pietra dura* decoration replaced traditional tile decoration with a paper-like white marble background that harmonized with a marble-faced architecture, against which naturalistic floral motifs stood out in bright contrast, as if to defy the figure-ground ambiguities so valued previously. By the middle of the seventeenth century, the international Timurid artistic heritage shared by the Ottomans, Safavids, Uzbeks, and Mughals had given way to distinctive decorative modes stressing different dynastic tastes in an Islamic world partitioned into autonomous cultural zones by powerful empires. With their unique Iznik tiles, the Ottomans were the first to shatter the cosmopolitan cultural unity and relatively homogeneous visual culture of the fifteenth century Islamic world.

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II.	Becihet-i harc-i kâşihâne-i hâşşa fi sene (For expenses of the royal ceramics workshop in a year)		44,334
1)	Bahâ'-i varak-i zer (cost of gold leaf)	4,500	6,750
2)	Bahâ'-i zencefre (cost of minium)	17 vuğiyye	932
3)	Bahâ'-i sülügen (cost of red lead)	19 vuğiyye	256
4)	Bahâ'-i revğan-i neft (cost of oil of turpentine)	7 vuğiyye	412
5)	Bahâ'-i şandalos (cost of sandaracha resin)	16 vuğiyye	560
6)	Bahâ'-i isfidâc (cost of white lead)	1,150 'aded (pieces)	10,600
7)	Bahâ'-i lâciverd-i kâşî (cost of cobalt)	88 kıyye	2,200
8)	Bahâ'-i kâşî (cost of ceramic stone [quartz])	200 kıt'a (pieces)	200
9)	Bahâ'-i meşk-i şakâ' (cost of the water carrier's leather container)	kıt'ateyn (several)	300
10)	Bahâ'-i resen-i mühür (cost of cord)	2 kıt'a 22 kıyye	112
11)	Bahâ'-i pervîzen (cost of sieve)	2 kıt'a (pieces)	50
12)	Bahâ'-i pota (cost of earthenware melting pot)	50 top (bales)	50
13)	Bahâ'-i hürdavât-i züccâc (cost of small pieces of glass)	1,700 kıyye	5,100
14)	Bahâ'-i mürdeseng (cost of dross of lead)	28 kânâr	3,696
15)	Bahâ'-i seng-i râstık (cost of crude copper sulphate)	185 kıyye	4,625
16)	Bahâ'-i tâş-i nuhâs (cost of copper ore)	10 vuğiyye	100
17)	Bahâ'-i dutkâl-i mâhî (cost of isinglass)	2 vuğiyye	31
18)	Bahâ'-i kâğıd (cost of paper)	20 deste (packets)	60
19)	Bahâ'-i mıkırâz (cost of scissors)	10 kıt'a (pieces)	70
20)	Bahâ'-i kalây (cost of tin)	3 kânâr	3,100
21)	Bahâ'-i kirpâs-i ketân (cost of linen cloth)	20 zirâ'a (cubits)	90
22)	Bahâ'-i koğa (cost of bucket)	1 kıt'a (piece)	13
23)	Bahâ'-i kapâk-i furun (cost of kiln lid)	5 kıt'a (pieces)	360
24)	Bahâ'-i âhen (cost of iron)	1 'aded (piece)	110
25)	Meremmet-i külünk (repair of crowbar)	5 kıt'a (pieces)	12
26)	Ücret-i ırgādân kim şıkâften-i hîme-i dişbudâk (wages of laborers for splitting ashwood [<i>fraxinus ornus</i>])	50 eyyâm (days)	290
27)	Ücret-i hammâlân kim keşîden-i hîme-i koca yemiş ve seng-i kalya (wages of porters for carrying wood of the wild strawberry [<i>carbutus unedo</i>], and crude potash)	128 himl (loads)	452
28)	Becihet-i kirâye-i navlûn berâ-yi âverden-i seng-i kalya (for freight costs for bringing crude potash)		200

- 29) Becihet-i nafaqa-i ğilmân-i hâşşa berâ-yi hizmet-kerden-i Usta (fi yevm [in a day] 10)
 ‘Alî kâşiger ‘an ğurre-i Rebî ‘ül-âhîr sene 934 (fi sene [in a year]) 3,600
 (For wages of royal novices for serving Master ‘Alî the ceramicist,
 on 25 December 1527)

* (Fol. 53)

بسم الله الرحمن الرحيم
 الحمد لله رب العالمين
 والصلاة والسلام على
 سيدنا محمد وآله
 أما بعد

- III. Becihet-i sāhten-i kâşî berâ-yi ħazret-i ħullide mülkuhu 912
 (for making tiles for His Majesty, may his reign be everlasting)

* (Fol. 61)

بسم الله الرحمن الرحيم
 الحمد لله رب العالمين
 والصلاة والسلام على
 سيدنا محمد وآله
 أما بعد

- IV. Becihet-i meremmet-i kârĥâne-i Usta ‘Alî ve sāhten-i nerdbân 2,301
 (for repairing the workshop of Master ‘Alî and making its staircase)

* (Fol. 70)

بسم الله الرحمن الرحيم
 الحمد لله رب العالمين
 والصلاة والسلام على
 سيدنا محمد وآله
 أما بعد

- V. Becihet-i sāhten-i kâşî berâ-yi sa ‘âdetĥâne-i ħazret-i Pâşâ 20,517
 (for making tiles for the house of felicity of His Majesty the Pasha)
 VI. Becihet-i sāhten-i furun-i kâşîĥâne-i hâşşa ve meremmet-i ħavz 7,915
 (for making the kiln of the royal ceramics workshop and repairing its pool)

- III. Becihet-i meremmet-i furun-i kâşihâne-i hâşşa
(for repairing the kiln of the royal ceramics workshop) 1,478

* (Fol. 58) ğurre-i R. Âhîr 935 (13 December 1528)

میرزا حسن کاشیگر
وزیر دربار
در تعمیر کاشیخانه
کاشیخانه

- IV. Becihet-i ħarc-i sâhten-i kâşihâ-i mütenevvî ‘a berâ-yi divânĥâne-i enderûnî der sarây-i ‘âmirî
(for expenses of making assorted tiles for the inner audience hall of the imperial palace) 63,363

* (Fol. 61) ğurre-i R. Âhîr 935 (13 December 1528)

روستایان کاشیخانه
لله

- V. Teslîm-i Usta ‘Alî kâşîger
(given to Master ‘Alî the ceramicist) 1,000

* (Fol. 99) ğurre-i R. Âhîr 935 (13 December 1528)

میرزا حسن کاشیگر
وزیر دربار
در تعمیر کاشیخانه
کاشیخانه

- VI. Becihet-i sâhten-i kâşihâ-i mütenevvî ‘a berâ-yi köşk-i cedîd der bâğçe-i hâşşa der nezd-i şoffâ-i mermer
(for making assorted tiles for the new kiosk in the private garden near the marble terrace) 360

APPENDIX II: A VOCABULARY OF IZNIK TILES COMPILED FROM TWO FRAGMENTARY ACCOUNT BOOKS OF THE YALI (SHORE) KIOSK IN THE TOPKAPI PALACE

I. Başbakanlık Arşivi, Maliyeden Müdevver 750, fols. 113, 182.

Assorted tiles (*kâşihâ-yi mütenevvî*^a) produced in Iznik for the kiosk in 1591 and 1592:

1. "Square tiles with grape designs" (*kâşî-yi çârşu bâ-nağş-i engür*)
2. "Square tiles with rumi and grape designs" (*kâşî-yi çârşu bâ-nağş-i rûmî engür / kâşî-yi çârşu-yi diger bâ-nağş-i rûmî ve engür*)
3. "Border tiles with marbling (cloud) designs" (*kâşî-yi hâşîye bâ-nağş-i ebrû / kâşî-yi hâşîye bâ-nağş-i bulud*)
4. "Border tiles with tulip designs" (*kâşî-yi hâşîye bâ-nağş-i lâle / kâşî-yi hâşîye-i diger bâ-nağş-i lâle*)
5. "Border tiles with hatayi motifs" (*kâşî-yi hâşîye bâ-nağş-i kitâyî / kâşî-yi hâşîye-i diger bâ-nağş-i kitâyî*)
6. "Border tiles with rumi motifs" (*kâşî-yi hâşîye bâ-nağş-i rûmî / kâşî-yi hâşîye-i diger bâ-nağş-i rûmî*)

II. Topkapı Sarayı, Sinan Paşa Arşivi 77, fols. 48b-50b.

Types of tiles produced in Iznik for the same kiosk in 1593:

1. "Inscription tiles" (*kâşî-yi muĥaţţat / kâşî-yi ĥaţţ*)
2. "Marble-patterned tiles" (*kâşî-yi mermer nağş / kâşî-yi nağş-i mermer*)
3. "Marble-patterned border tiles" (*kâşî-yi mermer nağş hâşîye*)
4. "Grapevine tiles" (*kâşî-yi aşma*)
5. "Tulip tiles" (*kâşî-yi lâle / kâşî-yi nağş-i lâle*)
6. "Rumi tiles" (*kâşî-yi rûmî*)
7. "Border tiles" (*kâşî-yi hâşîye*)
8. "Muqarnas tiles" (*kâşî-yi muĥarnes*)
9. "Cornice [or molding?] tiles" (*kâşî-yi galûy [or gilvi]*)

10. "Skirting tiles" (*kāṣī-yi pāy / kāṣī-yi ayak*)
11. "Cresting tiles" (*kāṣī-yi tāt*)
12. "Beveled border tiles" (*kāṣī-yi pāhlu-yi ḥāṣiye*)
13. "Double beveled corner tiles" (*kāṣī-yi iki pāhlu / kāṣī-yi köşe iki pāhlu*)
14. "Small or large tile roundels" (*kāṣī-yi dāire-yi sağır / kāṣī-yi dāire-yi kebīr*)
15. "Tiles for large inscription roundels" (*kāṣī-yi dāire-yi kebīr-i muḥaḥḥat / kāṣī-yi muḥaḥḥat berā-yi dāire-yi kebīr*)
16. "Curved lunette tiles for windows (*kāṣī-yi degirmi-yi cām / kāṣī-yi cām*)
17. "Tiles for small doors" (*kāṣī-yi deriçe / kāṣī berā-yi deriçe*)
18. "Tiles for fountain" (*kāṣī berā-yi çeşme*)
19. "Tiles for the fireplace of the head gatekeeper's room" (*kāṣī berā-yi ocağ-i oda-i hz. āga-yi bāb-i hümāyūn*)
20. "Tiles for the fireplace of the large domed hall" (*kāṣī berā-yi ocağ-i ḫubbe-i kebīr*)

NOTES

1. For the impact of itinerant potters from Iran, see Rudolf M. Riefstahl, "Early Turkish Tile Revetments in Edirne," *Arş İslamica* 4 (1937): 251–81; Michael Meinecke, *Fayencedekorationen seldschukischer Sakralbauten in Kleinasien*, 2 vols. (Tübingen, 1976), 1: 101–20.
2. For recent excavations in Iznik, see Oktay Aslanapa, "Pottery and Kilns from the Iznik Excavations," in *Forschungen zur Kunst Asiens in Memoriam Kurt Erdmann*, ed. O. Aslanapa, R. Naumann (Istanbul, 1969), pp. 140–46; idem, "Iznik Kazılarında Ele Geçen Keramikler ve Çini Fırınları" (Pottery and Kilns Discovered during the Iznik Excavations), *Türk Sanatı Tarihi Araştırma ve İncelemeleri* 2 (1969): 62–73. For the technical analysis of tiles in the tombs of princes in Bursa, see Nurhan Atasoy and Julian Raby, *Iznik, The Pottery of Ottoman Turkey*, (London, 1989), pp. 86–87, 100. I would like to thank Dr. Raby for sending me the offprint of an article he wrote together with J. Henderson ("The Technology of Fifteenth-Century Turkish Tiles: An Interim Statement on the Origins of the Iznik industry," *World Archaeology* 21 [June 1989]: 115–32) and for commenting on an earlier draft of my article. Raby and Henderson have shown that the body and glaze of the early-sixteenth-century underglaze tiles decorating the tombs of princes in Bursa were not fully identical with Iznik pottery, an observation demonstrating that the tile technology was not as refined as that of pottery, *ibid.*, pp. 119, 125–28. For the hexagonal "Damascus" group of tiles, see John Carswell, "The Tiles in the Yeni Kaplıca Baths in Bursa," *Apollo* 120, no. 269 (July 1984): 36–43. For rare examples of tiles with a blue-white-turquoise or "Damascus" color scheme from ca. 1545–50 which are attributable to Iznik, see Atasoy and Raby, *Iznik*, pp. 133–34, 223, figs 221–22, 230–31.
3. Ekrem Hakkı Ayverdi, *Osmanlı Mimarisinde Çelebi ve II. Sultan Murad Devri* (The Period of Çelebi and Sultan Murad II in Ottoman Architecture), vol. 2 (Istanbul, 1972), pp. 46–118; Franz Taeschner, "Die Jeşil Gâmi in Brussa, ihre historischen Inschriften und ihre Künstler," *Der Islam* 20 (1932): 139–68.
4. Taşköprüzâde. *Eş-Şekâ'îku n-Nu'māniye fî 'Ulemâ'i d-Devleti l-'Osmāniye* (Crimson Peonies of the Ottoman State's Ulema), ed. A. S. Fırat (Istanbul, 1985), p. 437. For Nakkaş 'Alî's masjîd in Bursa, see Ayverdi, *Osmanlı Mimarisinde Çelebi*, vol. 2, p. 327.
5. Mehmed Neşrî, *Târîḫ* (History) Millet Kütüphanesi, Ali Emiri, no. 220, fol. 209b; Aşıkpaşazâde, *Die altosmanische Chronik des Aşıkpaşazâde*, ed. F. Giese (Leipzig, 1929), p. 197. For the Yeşil Complex tiles, see Riefstahl, "Early Turkish Tile Revetments," pp. 251–52; A. Lane, "The Ottoman Pottery of Iznik," *Arş Orientalis* 2 (1957): 251–54; Meinecke, *Fayencedekorationen*, 1: 102–6; John Carswell, "Ceramics," in *Tulips, Arabesques and Turbans: Decorative Arts From the Ottoman Empire*, ed. Y. Petsopoulos (New York, 1982), pp. 73–76; Atasoy and Raby, *Iznik*, pp. 83, 88.
6. Riefstahl was the first to suggest that the same group of Iranian tilemakers produced the Bursa and Edirne tiles, see "Early Turkish Tile Revetments," pp. 251–72; he was followed by Meinecke, *Fayencedekorationen*, 1: 102–14. Carswell argues that the Muradiye tiles were made on the spot and that the potters then moved on to Iznik, "Ceramics," pp. 76–79. For the attribution of the tile revetments of the Muradiye (1430's), Şah Melek Pasha (1429), and Üç Şerefeli (1437–38 to 1447–48) mosques in Edirne to the masters from Tabriz and the technical examination of the Muradiye underglaze tiles which differ technically from the fritware pottery of Iznik, see Atasoy and Raby, *Iznik*, pp. 84–89; Henderson and Raby, "The Technology of Fifteenth-Century Turkish Tiles," pp. 115–32.
7. For the examples of blue-and-white tiles in Khurasan, see Bernard O'Kane, *Timurid Architecture in Khurasan* (Costa Mesa, Calif., 1987), pp. 65–66. Also see J. M. Rogers, "A Group of 14th-Century Persian Blue and White Tiles," in *Zusammenfassungen der für den VII Internationalen Kongress für Iranische Kunst und Archäologie vorgesehenen Vorträge*, n.d., n.p.
8. Lisa Golombek and Donald Wilber, *The Timurid Architecture of Iran and Turan*, 2 vols. (Princeton, 1988), 1: 177. The hexagonal tiles attributed to the Ming factories support Babur's statement that Ulugh Beg had sent men to bring tiles for the pavilion from China, Zahir al-Din Muhammad Babur, *Babur-nama*, trans. A. Beveridge, 2 vols. (London, 1921), 1: 80.
9. O'Kane, *Timurid Architecture*, pp. 65–66, 69, 110.
10. For a comparison between the Muradiye and al-Tawrizi tiles, see Carswell, "Ceramics," p. 78. For related underglaze painted tiles, see idem, "Six Tiles," *Islamic Art in the Metropolitan Museum of Art*, ed. R. Ettinghausen (New York, 1972); "Some Fifteenth-Century Hexagonal Tiles from the Near East," *Victoria and Albert Museum Yearbook III* (London, 1972).
11. For the Blue Mosque tiles, see O'Kane, *Timurid Architecture*, pp. 65–66. For the Dome of the Rock tiles, see Lane, "The Ottoman Pottery," pp. 273–74; Carswell, "Ceramics," p. 89; Atasoy and Raby, *Iznik*, p. 220.
12. The lunette panels of Mehmed II's mosque are attributed to the masters of Tabriz in Atasoy and Raby, *Iznik*, p. 88. Mu'ālî, *Khunkarnāma* (Book of Kings), Topkapı Sarayı Kütüphanesi, H. 1417, fol. 8b.
13. *Fatih Mehmet II Vakfiyeleri* (The Foundation Deeds of Mehmed II the Conqueror) (Ankara, 1932), p. 241. For the tile lunettes of

- Mehmed II's mosque, see E. H. Ayverdi, *Osmanlı Mimarisinde Fatih Devri* (The Period of the Conqueror in Ottoman Architecture), vol. 3, photograph between pp. 368–69.
14. Faik Kırımlı, "İstanbul Çiniciliği" (Ceramic Production in Istanbul), *Sanat Tarihi Yıllığı* 11 (1981): 96–97, 106. The document is preserved in the Topkapı Sarayı Arşivi, no. E. 3152; I would like to thank Dr. Wheeler M. Thackston for helping me with a more precise translation than the one provided by Kırımlı. Meinecke hypothesizes that the itinerant group of Central Asian tilemakers who decorated the Çinili Köşk first stopped in Tabriz to decorate the Blue Mosque (*Fayencedekorationen*, 1: 114–20). For the Çinili Köşk, see Ayverdi, *Osmanlı Mimarisinde Fatih Devri*, vol. 4, pp. 736–55; S. H. Eldem, *Köşkler ve Kasırlar* (Kiosks and Pavilions), vol. 1 (Istanbul, 1969), pp. 61–79.
 15. For Baba Nakkaş and the album (LÜ.F. 1423), see Süheyl Ünver, "Baba Nakkaş," *Fatih ve İstanbul* 2 (1954): 7–12, 169–88; idem, *Fatih Devri Saray Nakışhanesi ve Baba Nakkaş Çalışmaları* (The Palace Design Studio in the Conqueror's Time and the Works of Baba Nakkaş) (Istanbul, 1958). For Baba Nakkaş's mosque and tomb, his waqf, and Evliya's statement, see Ayverdi, *Osmanlı Mimarisinde Fatih Devri*, vol. 4, pp. 824–29.
 16. For Tâcizâde Câ'fer Çelebi's late-fifteenth-century poem, see A. S. Levend, *Türk Edebiyatında Şehr-Engizler ve Şehr-Engizlerde İstanbul* (Encomiums on Cities in Turkish Literature and Encomiums on the City of Istanbul) (Istanbul, 1957), p. 79. An album compiled by Mir Sayyid-Ahmad Mashhadi in 1564–65 refers to the "islami" and "khata'i" modes, see W. M. Thackston, *A Century of Princes: Sources on Timurid History and Art* (Cambridge, Mass, 1989), p. 356.
 17. Raby regards the tiles of Prince Cem's tomb in Bursa as the last works of the Masters of Tabriz who were a "spent force" by 1474; Raby and Henderson, "The Technology of Fifteenth-Century Turkish Tiles," p. 118; Atasoy and Raby, *Iznik*, pp. 88–89, 100.
 18. Topkapı Sarayı Arşivi, D. 9587, fols. 5a–8a.
 19. Topkapı Sarayı Arşivi, D. 9706 (dated 932 [1526]), published in Robert Anhegger, "Quellen zur Osmanischen Keramik," in K. Otto-Dorn, *Das Islamische Iznik* (Berlin, 1941), pp. 184–85; Kırımlı, "İstanbul Çiniciliği," pp. 97–98, 108; and Atasoy and Raby, *Iznik*, p. 32. For the two other tile cutters, see Anhegger, "Quellen," p. 184.
 20. For Küçük Çelebizade's statement and references in Ottoman chronicles to Selim I's bringing of Tabrizi artisans to Istanbul, see Anhegger, "Quellen," pp. 180–84; Küçük Çelebizade (Âşım Efendi, *Tarih* [History], published in the history of Râşid, vol. 6 (Istanbul, 1865), pp. 252–53.
 21. Faik Kırımlı was the first to discuss the *ehl-i hîref* ceramicists of Istanbul in "İstanbul Çiniciliği," pp. 95–110; and idem, "İstanbul'da Ehli Hîref Çini Ustaları" (Ehl-i Hîref Ceramics Masters in Istanbul), *Antika* 16 (1986): 22–25. For all subsequent references in this paper to the two account books dating from 1527–28 (Başbakanlık Arşivi, Maliyeden Müdevver 17884, and Başbakanlık Arşivi, Kamil Kepeci 7097), see Appendix I.
 22. This document (Süleymaniye Kütüphanesi, Atuf Efendi 1734, no. 20), prepared in 976 (1568–69), is published in Kazım Çeçen, *İstanbul'da Osmanlı Devrindeki Su Tesisleri* (Ottoman Hydraulic Works in Istanbul) (Istanbul, 1984), p. 104.
 23. For the eighteenth-century kilns in Ayvansaray, see Wolfgang Müller-Wiener, *Bildlexikon zur Topographie Istanbuls* (Tübingen, 1977), pp. 244–46, 302; H. B. Kunter, "Türk vakıfları ve vakıf-yeleri üzerine mücmel bir etüd," *Vakıflar Dergisi* 1 (1938): 127; and Küçük Çelebizade, *Tarih*, pp. 252–53.
 24. Evliyâ Çelebi, *Seyâhatnâme* (Book of Travels), 10 vols (Istanbul, 1896–1930), 1: 69–70, 394–95, 600–2. Evliyâ does not mention a ceramics factory in his list of Istanbul's royal workshops (*mîrî kârkhâne*), 1: 510–11.
 25. For the export of Iznik ceramics to Europe, see Friedrich Sarre, "Der Import orientalischer Keramik nach Italien im Mittelalter und in der Renaissance," *Forschungen und Fortschritte* 9 (1933): 423–24; idem, "Die Fayencen von Nicaea und ihr export nach dem Abendland," *Pantheon* 24 (1939): 341–45; Atasoy and Raby, *Iznik*, pp. 264–72. For Baysunghur's *kitâbkhâna*, see Thackston, *Century of Princes*, pp. 323–27; Thomas W. Lentz and Glenn Lowry, *Timur and the Princely Vision: Persian Art and Culture in the Fifteenth Century* (Washington, D.C., and Los Angeles, 1989), pp. 159–60. That Ottoman court designers also drew patterns on paper for royal tents is documented in several unpublished account books. A book of royal tents lists the "cost of paper for designs (*bahâ-i kâğıd kim nakış*)," and "wages of designers for designing some patterns for decorated tents (*ücret-i nakkaşân ki nakış kerd-i ba'zı nakış-i resm-i hayme-i münakkâş*)" (Başbakanlık Arşivi, Ali Emiri 12, dated 921–22 [1515–16], fols. 32–33). Another book of tents shows that an amount was "paid to Hasan Beg (i.e., Hasan bin Abdülcelil) the chief of court designers for designing tents" (*teslim-i hasan beg ser-nakkaşân berâ-yi nakış kerd-i otâkhâ*) (Başbakanlık Arşivi, Maliyeden Müdevver 7668, dated 931–33 [1524–27], fol. 10). The same information, "paid to Hasan Beg chief of designers for the designing of decorated royal tents and others" (*teslim-i hasan beg ser-nakkaşân berâ-yi nakış kerd-i otâkhâ-yı müzehheb-i hâşşa ve gayri*), and "costs of glue and paper for designing parasol-tents and others" (*bahâ-i çiriş ve kâğıd kim resm kerd-i sâyebânâ ve gayri*), is provided in Başbakanlık Arşivi, Maliyeden Müdevver 22082, dated 935 (1528–29), fols. 2b, 3b.
 26. Topkapı Sarayı Arşivi D. 10009, published in Kırımlı, "İstanbul Çiniciliği," p. 109, refers to a tilemaker (*kâşitrâş*) who presented to the sultan "a ceramic rose and a plate" (*bir kâşi gül ve bir tabak*).
 27. For wage registers referring to Alaüddin as Chief Architect, see Gülrü Necipoğlu-Kafadar, "The Topkapı Palace in the Fifteenth and Sixteenth Centuries," Ph.D. diss., Harvard University, 1986, pp. 278–79 (Topkapı Sarayı Arşivi, D. 9706–2, fols. 2b, 10a; D. 10141, fol. 5r; D. 7843 fol. 2b; Başbakanlık Arşivi, Maliyeden Müdevver 559, fol. 3). For the extensive renovation of Süleyman's palace under the supervision of Ibrahim Pasha by Mimar Alaüddin, and Helaki's chronogram, see *ibid.*, pp. 273–82, 341–45, 420–25.
 28. For a detailed discussion of Süleyman's new Arz Odası and his kiosks on the marble terrace in front of the Privy Chamber (Holy Mantle Pavilion), see Necipoğlu-Kafadar, "Topkapı Palace," pp. 343–74, 416–30. For Eldem's demonstration that the Sünnet Odası still preserves its original sixteenth-century core, see S. H. Eldem, *Köşkler ve Kasırlar*, 1: 319–28. The Sünnet Odası restoration inscription is published in 'Abdurrahman Şeref, "Topkapı Sarây-i Hümayum" (The Imperial Palace of Topkapı), *Tarih-i 'Osmanî Encümeni Mecmu'ası* 5–12 (1326–27/1910–11), pp. 415–16. For Cevri's chronograms praising Ibrahim I's renovated pavilion, see Cevri Ibrahim Çelebi, *Cevri, Hayatı, Edebi Kişiliği, Eserleri ve Divanının Tenkidli Metni* (Cevri, His Life, Literary Character, Works and a Critical Edition of His Anthology), ed. H. Ayan (Erzurum, 1981), pp. 290–91, 293–96.
 29. For a detailed description of the Sünnet Odası tiles, see Kurt Erdmann, "Die Fliesen am Sünnet Odası des Top Kapı Saray in

- Istanbul," in *Aus der Welt der islamischen Kunst, Festschrift für Ernst Kühnel* (Berlin, 1959), pp. 144–53; idem, "Neue Arbeiten zur Türkischen Keramik," *Ars Orientalis* 1 (1963): 192–219; and Walter Denny, *The Ceramics of the Mosque of Rüstem Pasha and the Environment of Change* (New York, 1977), pp. 114–22.
30. For this group of *cuerda seca* tiles, see Lane, "The Ottoman Pottery of Iznik," pp. 262–63; Julian Raby, "Diyarbakır: A Rival to Iznik," *Istanbuler Mitteilungen* 27–28 (1977–78): 445; Meinecke, *Fayencedekorationen*, 1: 119; Filiz Yenişehirlioğlu, "Les grandes lignes de l'évolution du programme décoratif en céramique des monuments ottomans au cours du XVI^e siècle," *Erdem* 1 (1985): 456–65.
 31. For the tiles of Şehzade Mehmed's tomb and the hypothesis that Sinan might have designed their program, see Yenişehirlioğlu, "Les grandes lignes," pp. 462–65; idem, "Şehzade Mehmet Türbesi Çinileri Üzerine Gözlemler" (Observations on the Tiles of the Şehzade Mehmed Mausoleum), in *Bedrettin Cömert'e Armağan* (Ankara, 1980), pp. 449–56.
 32. For this group of underglaze painted tiles and their counterparts in various collections, see Lane, "The Ottoman Pottery of Iznik," pp. 265–66; Erdmann, "Die Fliesen," pp. 144–53; Denny, *Ceramics of the Mosque of Rüstem Pasha*, pp. 114–30. For the technical examination of underglaze tiles from Iznik, workshop procedures in their preparation, and related bibliography, see Charles Kiefer, "Les Céramiques silicieuses d'Anatolie et du Moyen-Orient," *Bulletin de la Société Française de la Céramique* 30 (1956): 3–24 and 31 (1956): 17–34; W. D. Kingery and P. M. Vandiver, *Ceramic Masterpieces. Art, Structure and Technology* (New York, London, 1986), pp. 123–34; Atasoy and Raby, *Iznik*, pp. 50–69.
 33. The *cuerda seca* tile panels decorating the Arz Odası façade, which was originally faced with marble revetments, appear to have been fixed at a later date. For a detailed description of Süleyman's Arz Odası completed in 1528, see Necipoğlu-Kafadar, "Topkapı Palace," pp. 343–74; Caterino Zeno, "Descrizione del viazo di Costantinopoli 1550 de ser Catharin Zen, ambascador straordinario a sultan Soliman, e suo ritorno," in *Dua Talijanska Putopisa Po Balkanskom Poluotoku iz XVI. Veka*, ed. P. Matkovic, p. 26; Corneille Duplicius de Schepper, *Missions diplomatiques de Corneille Duplicius de Schepper*, ed. Baron de Saint-Genois and G.A. Yessel de Schepper, in *Mémoires de l'Académie Royale de Belgique* 30 (1857): 172; Maffeo Venier, "Relazione (1582)," Marciana, ms. Ital. Cl. VII Cod. DCCCLXXXII (8505), fol. 42v. For the underglaze blue-and-white lamp and ball from the mosque of Selim I, see Atasoy and Raby, *Iznik*, p. 102, figures 305 and 306.
 34. For the Cairene marble revetments attributed to Selim I, see Seyyid Lokmân, *Hünernâme* (Book of Skills), Topkapı Sarayı Kütüphanesi, H. 1523, fol. 219a; Michael Meinecke, "Mamlukische Marmordekorationen in der osmanischen Türkei," *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 27/2 (1971): 208–12. Assuming that they were added in the reign of Süleyman, Denny dates the tiles of the Holy Mantle Pavilion to 1524 (*Ceramics*, p. 123), but Aslanapa dates them to around 1520; Oktay Aslanapa, *Osmanlı Devri Mimarisi* (Architecture of the Ottoman Period) (Istanbul, 1986), pp. 155–57.
 35. For Golden Horn wares see Lane, "Ottoman Pottery," pp. 270–72; Carswell, "Ceramics," p. 83; Faruk Şahin, "Kütahya Çini keramik sanatı ve tarihinin yeni buluntular açısından değerlendirilmesi" (A Reconsideration of Kütahya Pottery Art and Its History from the Point of View of New Finds), *Sanat Tarihi Yılı 9–10* (1979–80): 259–86; Atasoy and Raby, *Iznik*, pp. 108–13. For a fragmentary Golden Horn type tile at Berlin-Dahlem, and Italian imitations of these wares, see Atasoy and Raby, *Iznik*, figs. 143, 589, 590. The experimental phase of Iznik wares in the 1520's is discussed in *ibid.*, pp. 101–4. For a comparative technical analysis of fritware tilework and pottery attributable to the masters of Tabriz, the Iznik workshops, and a tile from the tomb of Selim I, see Henderson and Raby, "The Technology of Fifteenth-Century Turkish tiles," pp. 116, 120–30.
 36. For the use of stencils, see Walter Denny, "Turkish Ceramics and Turkish Painting: The Role of the Paper Cartoon in Turkish Ceramic Production," in *Essays in Islamic Art and Architecture in Honor of Katharina Otto-Dorn*, ed. Abbas Daneshvari (Malibu, 1981), pp. 29–35. For the use of the same stencil on a blue-white-turquoise tile and a "Damascus" type dish in Iznik around 1545–50, see Atasoy and Raby, *Iznik*, pp. 133–34, figs. 221–22. The designs of hexagonal blue-white-turquoise tiles are reproduced on some Iznik ceramic plates with a "Damascus" or pure white color scheme, *ibid.*, p. 56, figs. 50a–c, 52a–b. For a late-eighteenth-century perforated paper stencil, see *ibid.*, fig. 51.
 37. For the date of the five picture panels, see Lane, "Ottoman Pottery," pp. 265–67; Erdmann, "Die Fliesen," 144–53; Walter Denny, "Ceramics," in *Turkish Art*, ed. Esin Atıl (Washington, D.C., and New York, 1980), pp. 283–84; idem, "Dating Ottoman Works in the Saz Style," *Muqarnas* 1 (1983): 103–21; J. M. Rogers and R. M. Ward, *Süleyman the Magnificent* (London, 1988), p. 76; J. M. Rogers, "A Group of Ottoman Pottery in the Goodman Bequest," *Burlington Magazine*, March 1985, p. 134.
 38. For this binding, see Esin Atıl, *Süleyman the Magnificent* (Washington, D.C., and New York, 1986), pp. 76–77; Rogers and Ward, *Süleyman*, p. 98.
 39. Banu Mahir, "Saray Nakkaşhanesinin Ünlü Ressamı Şah Kulu ve Eserleri" (The Famous Painter of the Palace Design Studio Şah Kulu and His Works), *Topkapı Sarayı Müzesi Yılı 1* (1986): 113–30. For examples of painters (*nakkaş*) who presented decorated ceramic plates and cups to the sultan on religious holidays, see Kırmızı, "İstanbul Çinçiliği," pp. 100–1, 109. For Khwandamir's description of Mawlana Hajji Muhammad Naqqash, see Thackston, *Century of Princes*, p. 224.
 40. Basil Gray, "The Tradition of Wall Painting in Iran," in *Highlights of Persian Art*, ed. R. E. Ettinghausen and E. Yarshater (Boulder, Colo., 1979), pp. 319–20.
 41. Mahir, "Saray Nakkaşhanesinin," pp. 129–30; Filiz Çağman's views, which she kindly shared with me, are soon to be published in a study on the Ottoman decorative vocabulary. The date, 1527–28, proposed for the Sünnet Odası tile panels in this article is accepted in Atasoy and Raby, with whom I shared the information presented in this article before it appeared in print, *Iznik*, pp. 102–4.
 42. The fire which damaged Süleyman's kiosk is documented in Başbakanlık Arşivi, Maliyeden Müdevver, 2097, fols. 9–13. For references to Süleyman's kiosk in the account books from 1527–28, see Necipoğlu-Kafadar, "Topkapı Palace," pp. 420–25. Without citing a source, Walter Denny writes, "The large tiles in question appear to have been created in the 1550's or 1560's as decorations for the Arz Odası (Throne Room) of Sultan Süleyman," "Ceramics," p. 283. For Süleyman's throne room built and decorated with ceramics in 1527–28, see above, n. 33.
 43. Ö.L. Barkan, *Süleymaniye Cami ve İmareti İnşaatı (1550–1557)* (The Construction of the Süleymaniye Mosque and Complex), 2 vols. (Ankara, 1972–79), 1: 15–22.

44. For the cultural context, decoration and inscription program of the Süleymaniye, see Gülru Necipoğlu-Kafadar, "The Süleymaniye Complex in Istanbul: An Interpretation," *Muqarnas* 3 (1985): 92–117.
45. For examples of illumination on white paper using blue and red, see Atıl, *Süleyman the Magnificent*, nos. 6, 18b, 62; Rogers and Ward, *Süleyman, the Magnificent*, no. 12, 24b, 69.
46. Sinan's role in determining the tile programs of his mosques is discussed in Yenişehirlioğlu, "Les grandes lignes," pp. 462–72. For the chief court architect's jurisdiction over Iznik potters and ceramicists in 1640, see Mübahat Küçüköğlu, *Osmanlılarda narh müessesesi ve 1640 tarihli narh defteri* (The institution of government-fixed prices [narh] of the Ottomans and the narh book of 1640) (Istanbul, 1983), p. 294; cited in Atasoy and Raby, *Iznik*, pp. 25, 219.
47. For the so-called Damascus Group, see Lane, "Ottoman Pottery," pp. 264–70; Carswell, "Ceramics," pp. 84–85. For Kara Memi and illuminated manuscripts signed by him, see Atıl, *Süleyman*, pp. 31–32, 54–56, 68–69. An unpublished book of royal expenses from Süleyman's reign reveals that Kara Memi was already illuminating manuscripts in the 1540's. One of the entries under 949 (1542) reads, "The designer Kara Memi was given a donation of 20 ducats" (*nakḥāş kâra memiye 20 filuri in'âm olundu*). Another entry under 952 (1545) reads, "The designer Kara Memi was donated 30 ducats for illuminating a manuscript" (*nakḥāş kâra memiye kitâb tezhibi için otuz filuri virilüb in'âm olundu*) (Topkapı Sarayı Arşivi, D. 1992, fols. 10a, 32a).
48. For these figures, see Atıl, *Süleyman*, p. 178. As a general introduction to Ottoman textiles, see *ibid.*, pp. 177–24; Walter Denny, "Textiles," in *Tulips, Arabesques and Turbans*, pp. 121–69; and L. M. Mackie, "Rugs and Textiles," in *Turkish Art*, pp. 299–374. For Rüstem Pasha's policy of curbing the import of Italian luxury textiles that had been sought earlier in Süleyman's reign during the grand vizierate of Ibrahim Pasha, see Gülru Necipoğlu, "Süleyman the Magnificent and the Representation of Power in the Context of Ottoman-Hapsburg-Papal Rivalry," *Art Bulletin* 71/3 (September 1989): 401–27.
49. For the plan of a sixteenth-century textile factory in Istanbul which shows a separate room for textile designers (*nakḥbendler odası*), see Tahsin Öz, *Turkish Textiles and Velvets: XIV-XVI Centuries* (Ankara, 1950), p. 57; and Gülru Necipoğlu-Kafadar, "Plans and Models in 15th- and 16th-Century Ottoman Architectural Practice," *Journal of the Society of Architectural Historians* 45/3 (September 1986): 227. A letter from the governor of Egypt to the former Venetian Bailo of Aleppo, written in September 1554, mentions that he sent designs prepared by a designer (*nakḥāş resm üldirüp*) for the textiles he ordered to be made in Venice (Archivio di Stato, Venezia, Documenti Turchi 657). A dispatch of the Venetian Bailo Antonio Erizzo in August 1554 refers to four types of designs (*"li disegni liquali sono di quattro sorti"*) sent to Venice for the cushions ordered by Rüstem Pasha for his daughter. These were provided with marginal notes in Turkish translated into French (*"di scrittura fatta in turco sopra cadauna di essi disegni laqual ho fatta tradure in franco"*) Archivio di Stato, Venezia, Dispacci al Senato, Costantinopoli, Filza 1A, fol. 62b–63a; fol. 280b.
50. For references to "nümüne," see Refik, "İznik Çinileri," no. 4, pp. 37–38; no. 10, pp. 40–41; translated into German by Anhegger, "Quellen," no. 7, pp. 167–68, no. 11, p. 169. For the use of paper cartoons, see Denny, "Turkish Ceramics and Turkish Painting," pp. 29–35.
51. The entries read: "Given to the hand of the non-Muslim Bâli known as 'kemhâcı' for designs for tiles, 1000 [akçe] (*teslim be-dest-i bâli zimmi eş-şehîr be-kemhâcı berâ-yi resm-i kâşî... 1000*)" and "Given to the hand of the painter Mehmed Çelebi for designs of lines (either outlines of patterns or calligraphy) for tiles, 49 pieces of designs, from 70, 3430 (*teslim be-dest-i mehmed çelebi ressam berâ-yi resm-i huṭûṭ-i kâşî... rusûm 'aded 49, fî 70, 3430*)" (Topkapı Sarayı Arşivi, Sinan Paşa Arşivi 77, fols. 18b, 19a). For the Yah Kiosk and its tiles ordered to Iznik, see Necipoğlu-Kafadar, "Topkapı Palace," pp. 523–36; Başbakanlık Arşivi, Maliyeden Müdevver 750, fols. 3, 113, 138, 182; and Sinan Paşa Arşivi 77, fols. 48b–50b. A section of M.M. 750 has been published in Barkan, *Süleymaniye*, 2: 275. For a list of Iznik tile types compiled from these documents, see Appendix II. Rogers dismisses the use of stencils on paper for textiles or tile panels, on the grounds that so far none of them have been discovered (Rogers and Ward, *Süleyman*, p. 124). For the reference to textile-like tiles, see Küçük Çelebizâde, *Tarih*, p. 253.
52. Ahmet Refik, "İznik Çinileri," *Darülfünun Edebiyat Fakültesi Mecmuası* 8/4 (1932), no. 8, pp. 39–40; translated into German by Anhegger, "Quellen," no. 10, pp. 168–69.
53. See n. 19 and appendix for the numbers in 1526 and 1527–28.
54. Topkapı Sarayı Arşivi D. 9612, dated 965–66 (1557–58), fol. 9b lists: "Cemâ'at-i kâşiciler: 'Ali Prizren 9.5, Timurhan Bosna 6, 'Ali Karaferya şâgird 2, Muṣṭafâ Badre 3." This document is wrongly dated to 1015 (1606) in Anhegger, "Quellen," p. 185.
55. Başbakanlık Arşivi, Maliyeden Müdevver 6196, dated 974 (1566), fol. 172: "Cemâ'at-i kâşigerân 3 neferen: 'Ali Prizren 10, 'Ali Karaferya 4, Muṣṭafâ Badre 4.5."
56. Başbakanlık Arşivi, Maliyeden Müdevver 6520, dated 992 (1584), fol. 17: "Cemâ'at-i kâşigerân 2 neferen."
57. Başbakanlık Arşivi, Maliyeden Müdevver 7257, dated 1005 (1596–97), fol. 24: "Cemâ'at-i kâşigerân-i ḥâşşa 5 neferen: 'Osman 7, Muṣṭafâ 6, Mehmed 'Ali 3, Kurd 3, Muṣṭafâ kâşiger 4."
58. Başbakanlık Arşivi, Maliyeden Müdevver 7362, dated 1007 (1598), fol. 120, 185: "Cemâ'at-i kâşigerân-i ḥâşşa 4 neferen, 'Osman 7, Muṣṭafâ 6, 'Ali Mehmed 3, Muṣṭafâ kâşiger 4"; dated 1007 (1599), fol. 215, shows a drop: "Cemâ'at-i kâşigerân-i ḥâşşa 3 neferen: 'Osman 7, 'Ali Mehmed 3, Muṣṭafâ kâşiger 4."
59. For another *ehl-i hîref* register listing two "kâşigerân" in 1017 (1608), see Anhegger, "Quellen," p. 185.
60. Başbakanlık Arşivi, Mühimme Defteri 14, No. 819.
61. J. W. Allan, "Abū'l Qāsim's Treatise on Ceramics," *Iran* 11 (1973): 111–20. For "bora," see Atasoy and Raby, *Iznik*, pp. 52.
62. For the inscriptions of the Süleymaniye, see Necipoğlu, "The Süleymaniye Complex," pp. 107–11. An imperial decree from 1572 addressed to the architect Sinan shows that Hasan Karahisari, who was the calligrapher the architect had requested for the inscriptions of the Selimiye mosque, had been sent to Edirne to design both the painted and tilework inscriptions according to Sinan's instructions (see Ahmet Refik, *Türk Mimarları* [Turkish Architects], ed. Zeki Sönmez [Istanbul, 1977], pp. 112–13, no. 16).
63. Mehmed ibn 'Aşık, *Menâzirü'l 'Avâlim*, Topkapı Sarayı Müzesi Kütüphanesi, R. 1667, fols. 337a–37b.
64. For provincial Ottoman tiles, see Raby, "Diyarbakır," pp. 429–59; Carswell, "Ceramics," pp. 88–90; *idem*, *Kütahya Tiles and Pottery from the Armenian Cathedral of St. James, Jerusalem*, 2 vols. (Oxford, 1972).
65. The move away from Timurid artistic models was paralleled by

a rejection of European artistic influences in the late 1530's when Ottoman culture was trying to define its separate identity. For the enthusiastic patronage of European artists during the grand vizierate of Ibrahim Pasha (1523–36) who favored a syncretistic court culture, and Rüstem Pasha's (1544–53/1555–61) different cultural orientation which resulted in the formation of the classical Ottoman style, see Necipoğlu, "Süleyman and the Representation of Power," pp. 417–26.